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ABSTRACT

This report contains papers from the Six Nation Higher Education Research Project, an initiative that has focused on making a comparative study of the reform of higher education at the stage of postmassification in six countries: China, Germany, Singapore, Switzerland, the United States, and Japan. The papers are: (1) "The Six Nation Higher Education Project: Its Issues and Achievements" (Akira Arimoto); (2) "University Reform and Governance in Germany" (Ulrich Teichler); (3) "University Reforms and Academic Governance in Switzerland" (Francois Grin, Yuko Harayama, and Luc Weber); (4) "University Reforms and Academic Governance in Singapore" (Saravanan Gopinathan); (5) "Reform of British Universities and Academic Governance, 1990-2000" (Keith J. Morgan); (6) "Canadian Universities and Their Changing Environment: Consequences for Academic Governance and Administration" (Hans G. Schuetze); and (7) "Higher Education and Its Relation with Economy" From Japan's Experience of Higher Education Policy" (Shinichi Yamamoto). Each paper contains references. (SLD)

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UNIVERSITY REFORMS AND ACADEMIC GOVERNANCE RECONSIDERED

Report of the Six-Nation Higher Education Research Project

Edited by Akira Arimoto

RIHE

Research Institute for Higher Education
Hiroshima University

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Edited by Akira Arimoto

RIHE
Research Institute for Higher Education
Hiroshima University

University Reforms and Academic Governance Reconsidered

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PREFACE

The social environment effecting the present university reforms in Japan reflects positive trends arising from three factors: massification, knowledge-based society and globalization.

Massification and post-massification has been realized to the extent that as much as 49% of the eighteen-year old cohort is now enrolled in the universities and colleges. By 2009, enrolment is predicted to amount to 59% of the cohort. At this time there will be no need to restrict admissions through selective entrance examinations as the capacity of the system will match the predicted number of applicants. In effect, universal access will have been realized.

The knowledge base, proper to academia, has been transformed to a wider and broader role in society. Evolution to serve a knowledge-based society and mutation to provide knowledge-based capitalism requires reconstruction of knowledge in academia as well as in society at large.

Globalization, with the assistance of the IT revolution, ensures world-wide competition among universities and colleges in pursuit of academic excellence and productivity across the full range of university work – research, teaching and service.

Such trends, already evident in Japan are also to be observed internationally. The Six Nation higher education research project has focused on making a comparative study of the reform of higher education at the stage of post-massification among six countries: China, Germany, Singapore, Switzerland, USA, and Japan. Impact of the trends is recognizable in all the countries though it is clear that differing indigenous traits can be identified with each system's culture and social climate. Yet even within systems, variations exist arising from differences between nation and state, public and private sectors, and categories of institution.

This report, which is edited as part of the Six Nation higher education research project, is intended to complement a sister report, published in 2001 with the title UNIVERSITY REFORM AND ACADEMIC GOVERNANCE. That report consisted of papers from four countries: Germany, Switzerland, Singapore and Japan. In this report, UNIVERSITY REFORMS AND GOVERNANCE RECONSIDERED, two papers from Germany (Ulrich Teichler, University of Kassel) and Singapore (Saravanan Gopinathan, Nanyang Technological University) focus on the same topic of reform and governance that was dealt with in the previous volume in papers from Japan, Switzerland and USA. The Swiss paper (François Grin, Yuko Harayama and Luc Weber, University of Geneva) also discusses the same problem but from a

perspective different from that adopted as a basis for the previous paper. Papers from Canada (Hans G. Schuetze, University of British Columbia) and Britain (Keith J. Morgan), though not members of the Six Nation project, were invited to provide a wider comparative perspective. A paper from Japan (Shinichi Yamamoto, University of Tsukuba) fills a gap in the reports already published by addressing the problem of the relationship between higher education and economic growth, one of the key topics of the project. Finally a paper prepared by the editor of this report discusses retrospectively the issues and achievements of the project from its inception to the present stage.

I would like to express my heartfelt thanks to all the authors for their contributions to this report. I want also to thank Keith Morgan and Mariko Sakamoto for their collaboration in the editorial work. My hope is that this report will provide some useful and constructive influence on the development of academic reform in the six countries and more generally throughout the world; and perhaps also on development of research in higher education as well.

January 10, 2002

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The Six Nation Higher Education Project:

Its Issues and Achievements

Akira Arimoto
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1. Summary

1-1. Aim of the higher education project

From the outset, the project recognized the importance of making an international comparison between the six nations from the perspective of higher education policy. To do so it subjected two components of the cooperative study to intensive analysis. First, it sought to obtain an understanding in depth of the current higher education issues in the six nations through the project's cooperative research; and second, to make effective use of the results to derived from the program of international cooperative research. Specifically, much attention has been paid to the following viewpoints.

a. Together, the higher education reforms of the six nations provide a dialogue for comparison between West and East.

b Individually, the reforms identify a spectrum of national criteria for higher. education.

c. Development within the project of sub-themes to be shared by each of the national groups addressing: higher education reform, post-massification higher education, academic governance, and higher education and economic growth.

d. Recognition of the relationship between aim and method with an expectation that higher education reform would be derived from the logic of academic disciplinary development and the logic of social development. This approach from the Sociology of Science, or Sociology of Knowledge provides a focus on knowledge, or academic work on the basis of knowledge.

"Such a study emphasizes that academic work such as learning, teaching, research, and service, basically consist of knowledge, or application of knowledge as material and mediation. In other words, we need to pay attention to the nature of knowledge, to scientific knowledge and to academic disciplines.... The function of knowledge is mainly divided into four parts: discovery and invention, dissemination, application, and control. Accordingly, analysis of reforms acquired in the four phases——research, teaching, service, and administration and management organization — — is indispensable." (Academic Reforms in the World, Arimoto, p.280)

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e. Establishment of effective connections between research outcomes and recommendations for higher education.

Based on these general aims, the essential objectives were indicated to be:

· Comprehensive study of academic reforms in the areas of higher education systems in which research, teaching, social service, and management and administration constitute an overall objective; and

· While dealing analytically with academic organization for each of the four areas, making academic governance the focal point of study.

1-2. Hypotheses for the design of the higher education project

Working hypotheses for the project were established on the following bases:

a. Overall, higher education reform deals with problems of systems and institutions from a perspective of international similarity.
b. The higher education project deals with specific problems of systems and institutions from a perspective of national particularity.
c. A positive relation exists between higher education and social development.

1-3. Methodology of the higher education project

The following methods were adopted as appropriate to the project in the diverse series of activities undertaken.

a. Surveys based on documentary evidence including books, reports and other materials.
b. Surveys of specific topics by questionnaire.
c. International seminars including country reports and discussion among participants.
d. Interviews.
e. Reviews.
f. Sociological analysis, especially from the sociology of science, and sociology of knowledge.
g. Participation by many specialists in higher education research from various fields of study including sociology, education, history, economics, administration, comparative education, and also participation of many authorities from other fields including policy makers, commercial managers, presidents and vice presidents of universities, and academic staff.
h. Cooperative research with collaboration of the teams of each of the member's countries was made mainly in the six countries but in addition similar cooperative research with collaboration of non-member countries was also made in a number of other countries including England, Canada, Australia, and Thailand.

1-4. Focal areas of the higher education project

As far as the content is concerned, productive outcomes have been obtained in the results of studies falling into three general areas.

a. Mass higher education and post-massification higher education.

System level development was recognized through a wide range of indicators: access; numbers of higher education institutions; numbers of students; numbers of teaches; reform of curricula and of general education; Faculty development for teachers; differentiation of students in terms of scholastic aptitude and learning ability: institutionalization of graduate schools; and educational pathology reflecting conflicts between quality and quantity.

b. Administration and management

This topic was intensively and extensively examined in the report on "University Reforms and Academic Governance" (2001) in relation to the major factors including: relationships between nation, society and university; deregulation and market principles; top-down and bottom-up administration; current state of reforms in terms of benchmarking; the roles of government; budgetary controls; evaluation and assessment; and the importance of structures of governance.

c. Higher education and economic growth

From the commencement of the project, linkage between the knowledge-based society and academic productivity has been considered as a key concept. The director's paper explicitly illustrated this, emphasizing the nexus of the knowledge functions of discovery (research), dissemination (teaching), and understanding (learning) as indispensable both for academic work and for economic growth. In this context, the social contribution of academic work was explored in a series of seminars and reports in which university reform for economic growth was discussed and analyzed in relation to a range of factors: massification and post-massification structures; the relation between management and administration and market principles; privatization; academic productivity; institutionalization of graduate schools; studies of centers of learning; knowledge-based society; and globalization.

1-5 Outcomes of the higher education project

The project achieved the following outcomes.

a. Five reports:

(1) *Academic Reforms in the World: Situation and Perspective in the Massification Stage of Higher Education; Reports of the 1997 Six-Nation Higher Education Project Seminar* (RIHE International Seminar Reports, No. 10, July 1997, Research Institute for Higher Education, Hiroshima University)

(2) *Higher Education Reform for Quality Higher Education Management in the 21st Century: Economic, Technological, Social and Political Forces Affecting Higher Education; Proceedings of the 1999 Six-Nation Presidents' Summit in Hiroshima*, edited by Akira Arimoto and Keith Morgan (RIHE International Seminar Reports, No.11, March 2000, 183p., Research Institute for Higher Education, Hiroshima

University)

(3) *University Reforms and Academic Governance: Reports of the 2000 Three-Nation Workshop on Academic Governance*, edited by Akira Arimoto (RIHE International Publication Series No. 7, March 2001, 145p., Research Institute for Higher Education, Hiroshima University)

(4) *Cross-National Study on Post-Massification Academic Organizational Development* (in Japanese), edited by Akira Arimoto, Reviews in Higher Education, No. 46, October 1997, Research Institute for Higher Education, Hiroshima University)

(5) *International Comparative Study on Academic Reforms in the Post-massification Stage of Higher Education*(in Japanese), edited by Akira Arimoto, Review in Higher Education, No. 54, March 1999, 122p., Research Institute for Higher Education, Hiroshima University)

b. Three International Seminars:

(1) *Academic Reforms in the World: Situation and Perspective in the Massification Stage of Higher Education* held in Hiroshima, on February 6 and 7, 1997.

(2) *Higher Education Management in the 21st Century: Economic, Technological, Social and Political Forces Affecting Higher Education* held in Hiroshima, on September 19, 20 and 21, 1999.

(3) *University Reforms and Academic Governance* held in the Research Center for University Studies, University of Tsukuba, Tokyo, on February 24 and 25, 2000.

1-6. Problems and perspectives revealed by the higher education project

Research results achieved through the project revealed both positive and negative outcomes.

a. While comparative study of the academic reforms in each of the six nations has been successful to the extent that the present situation in each system is identified through the country reports, their different stages of development of higher education present problems in making a comparison between the systems.

b. Comparative study at the massification stage has been successful to a considerable degree as almost all nations have already passed this stage, but there are some difficulties in making a comparison of systems at the elite and post-massification stages.

> "At one extreme, enrollment in higher education in the U.S. already surpassed the recognized maximum for "mass higher education" more than two decades ago; while at the opposite extreme, China is likely to reach the recognized minimum level of mass higher education only around the year 2010. The enrolment quota at one extreme is more than ten times as high as at other extreme." (Teichler, p.221)

c. The two international seminars were successful in revealing valuable data fruitful information related to the project even though questionnaire survey could not

be realized according to the original research pattern in countries other than Japan.

d. Comparison of academic governance on the basis of a common questionnaire was successful for three nations (Japan, Switzerland and U.S.). It proved impossible to apply the same survey method to the other countries and this research remains to be completed.

e. Research on the relation between higher education and economic growth has been reconciled with a range of theoretical considerations, but it is desirable that much more positive research should be conducted.

Based on this retrospective view of the problems and perspectives, two important conclusions can be identified.

a. Feedback from the evidence now available from this project can contribute significantly to the next stages of academic reform facing each national system.

b. The comparative study of the six-nation higher education reforms constitutes a unique research resource in the field of higher education research; any subsequent studies will draw on the base established through this project.

2. Background to the Research

2-1. Identification of areas for research

The theme for research in the higher education project was focused on higher education reform. Researchers and participants in the various seminars recognized the international meaning and significance of this theme. In amplifying the theme, researchers paid much attention in the first place to reform at the levels of massification and post-massification, and then to the administration and management in universities and colleges as is indicated by the three publications.

"Academic Reforms in the World: Situation and Perspective in the Massification Stage of Higher Education".

"Higher Education Management in the 21st Century: Economic, Technological, Social and Political Forces Affecting Higher Education".

"University Reforms and Academic Governance".

2-2. National and international context for the reform of higher education

Classification of stages of development of higher education into recognizable categories proved a successful device for the purpose of comparing developments in the six countries.. Two aspects of categorization emerged, derived from the model formulated first by Martin Trow. This model identifies 3 stages of development: elite, mass and universal. For the project it became rapidly evident that it would be convenient to divide the stage of mass higher education into two phases: massification and post-massification. Accordingly, the United States and Japan can be categorized as in the post-massification stage, Germany, Switzerland, and

Singapore as in the massification stage, while China remains in the elite stage. Identification of the differing stages of development of the member countries in the project have yielded fruitful and meaningful outcomes by emphasizing the implications of the stages of development beyond national boundaries.

2-3. Identification of the research theme

Selection of a research theme from many alternatives was the responsibility of the initiator of the project. Viewpoints of both academic discipline and comparative research were considered. In the discipline of higher education research, academic reform provides a central theme and therefore it could supply the necessary framework for basic and applied research. In comparative studies of higher education, the concept of massification and emergence of a post-massification stage were considered to be especially important hypotheses in the light of previous studies. Hence, the theme was identified and accepted by the six countries as one suitable for an international comparative perspective. The general acceptance of this is demonstrated by the commitment of the researchers who prepared the detailed country reports and who contributed the intensive studies for the project seminars.

a. Participation

In the first seminar, researchers from each country participated. In the second seminar, on the other hand, various people participated, including presidents, researchers, sponsors, patrons, policy makers, administrators, and observers from academe, industry and commerce. In the third seminar, researchers and observers participated. Some interviews conducted by the Japanese team with people in the relevant countries included representatives of a wide range of academics, administrators, politics, industry and commerce.

b. Development of the research schedule

The research theme, with higher education reform as the key concept, remained unchanged throughout the project. There have though been changes to the balance of areas of research within the theme. The initial emphasis on areas such as research, teaching, service, and linkage between university and society, has gradually been overtaken by the need to focus on administration and management and on academic governance as central to the issue of higher education reform. At the same time, the relation between university and economic growth as a major issue has received less emphasis than was expected at the commencement of the project, even though it necessarily attracted substantial discussion in the seminars. Accordingly, it is intended to remedy this by using the opportunity to direct more attention to this aspect in preparing the project's final report.

2-4. Implementation

a. After the research theme was established, a basic survey of universities and colleges in Japan was conducted in 1996. Questionnaires were mailed to a sample of 561 universities (presidents) and 1,034 faculties (deans) taken from "The List of

Nationwide Universities" (ed. Ministry of Education, 1996 edition). A deadline for return was fixed (2 months). The final response numbers were 349 universities (return rate, 62.2%) and 647 faculties (62.5%).

b. The initial itinerary was designed on the assumption that similar surveys would be conducted in the six member countries. In the event, this was possible only for the American and Swiss teams and only at a later date and with modified questionnaires. The results of these surveys were presented in the report of University Reforms and Academic Governance. Impediments to conducting surveys in all the countries might have included a range of factors:

- Insufficient financial support;
- Constraints of time;
- Inapplicability of the questionnaire due to differences in the stages of development of higher education.

After having recognized these possibilities, we revised the original research design. If it had been possible to use a similar questionnaire in all countries, quantitative analysis of the responses could have been informative. Instead the outcome was still able to yield valuable qualitative data to augment participants' discussions in seminars, the interviews conducted by the Japanese team's with experts in the relevant countries, and the contributions of manuscripts in the published reports provided by researchers in such countries.

3. Methods

3-1. Data collection

Data was obtained from a variety of sources: questionnaire, interview, seminars, and from the contributions of researchers and expert advisers invited to attend to research meetings and to contribute papers to reports. Examples are given below.

a. Surveys by questionnaire were submitted to university presidents and deans of faculties ed in Japan as described in **Section 2-4**.

b. The Japanese team conducted interviews with appropriate individuals including bureaucrats, policy makers, academic researchers and staff, university presidents, and with representatives of official bodies and institutions, including Ministries of Education, universities, and research institutions, in member countries. Results of these interviews were recorded in reports published by the Japanese team.

c. Data collected in seminars and conferences was mainly derived from the country reports, other reports, discussions, comments, presented during the seminar and conference sessions. These data were gathered in the reports relating to the seminars and conferences.

d. Expert material from researchers and specialists who knew the problems of higher education in relevant countries was collected at research meetings held by the Japanese team. Some of them were asked to contribute papers to the subsequent

publications.

3.2 Data analyses

Analysis of the data varied to accommodate its form. Data from the questionnaires lent itself to standard analytical and statistical procedures. Descriptive data, from reports and conferences was generally available in tabular form and had already been analyzed by the authors before presentation. Data from interviews was generally non-quantitative and was provided in a descriptive format.

3-3. Relative contributions of descriptive, explanatory and analytical research

Descriptive research necessarily occupied a large part in the questionnaire survey conducted by the Japanese team; this led to explanatory and analytical researches. Similarly, the descriptive method of research was basically used by another countries, as country reports were based on statistics, materials, and any suitable preceding studies available for their own countries. These country reports were discussed by participants in the seminars and hence explanations were presented from various points of view, based on those country reports and discussions. Differences of methodological content accompanying this material revealed complementary relationships. To this extent, mutual interactions between descriptive and explanatory methods are likely to be valuable for understanding systems in both a domestic and an international perspective.

It can be seen that each country's report showed that the different stages of higher education development in each country had varying contributions derived from systemic, institutional, quantitative, sociological and economic factors. To this extent, the reports are descriptive. At the same time, comparison of one country's fact with other country's fact also reveals the international and universal implications the domestic facts. Consequently, merely making a descriptive report of the facts appropriate to the different stages of higher education development can appear to be meaningless in an international comparative study; explaining and identifying its meaning in an international context reveals its significance. For example, China is now passing through the elite stage of development and presents a substantially different description related to this stage compared to other countries now passing through the massification and post-massification stages. As a specific instance, the enrollment quota at one extreme is more than ten times as high as at the other extreme. The Chinese experience will offer a meaningful developmental perspective when it is connected to the experiences in the United States and Japan passing through the stage of post-massification.

It is interesting to note that despite descriptions indicating that they are strikingly different in their enrollment rates and so in the stage of development of higher education, each of the six countries identifies similar changes in their current moves to reform higher education. These differences and similarities will need adequate hypothesis such as the "Zeitgeist"-hypothesis proposed by Ulrich Teichler or

the "knowledge-based model" for explanation.

4. Significance of the Project

4-1. Practice, policy, and theory

a. Practice

Experience of the massification stage gained by those countries that have already advanced to this level can contribute to the shaping of future plans and practice in countries now in the process of developing their systems to this level. In particular this is relevant to the problem of reconciling the apparent conflict between quantity and quality that accompanies the development of a massified system. International comparative study can make available relevant case studies illustrating the kinds of conflicts already experienced in the advanced countries and offering opportunity for application in developing practices of academic reform.

b. Policy

Both by its size and rich experience in the post-massification stage, the United States, for example, significantly influences higher education policy in other countries. According to the comparative study on academic governance, early acceptance of market mechanisms by the United States provided it with a well developed market-driven model, much in advance of the experience of other countries. Examination of this model has had explicit influence on the administration and management policies of other countries

Similarly, privatized and deregulated administration and management are well developed in the American system. This also has been influential on the academic reforms in other countries.

An example is provided by recent higher education policy in Japan, where the central government has developed plans to introduce deregulated administration and management as a key concept in its higher education policy.

The quality of academic work has become a focal point of policy at the post-massification stage of development. Conflict between quantity and quality are only resolved by establishing guarantees of academic work. The guarantees need to extend across the full range of academic work - research, teaching, and social service. Consequently, self-study, internal and external academic evaluation and assessment have become more and more important.

c. Theory

The concept of development of mass higher education derived from Trow's model can now be examined in a range of real situations. According to the model, progression from massified to universal higher education could be considered a linear development. In reality it appears that many conflicts emerge in quantitative and qualitative dimensions between the two stages. Moreover, many similarities were found between the pre-massification and post-massification stages.

In practice the American base for the Trow linear growth model is confirmed. Yet evidently this does not correlate with experience elsewhere. Other countries have not followed the American model even though they have attempted to follow the same path. For those countries currently with under-developed systems, yet facing similar problems of globalization, a knowledge-based society, and expectations of life-long learning, and seeking reforms similar to those implemented elsewhere, the reflective and critical reviews provided by this project will prove important.

Research for the project indicates that the Trow model retains substantial validity when limited to the teaching and learning function in universities and colleges. It does not correlate with experience of the research function. The contribution of globalization, IT, and knowledge-based society, which has expanded rapidly after the 1980's has become a key factor in the research function. These knowledge components conform better to expectations derived from the knowledge-based model which now appears to offer a more appropriate base to accommodate reform of higher education across the six countries.

4-2. Implications of findings for theory, policy and practice

The full results of research enquiries are published in the relevant reports. Only the main points are identified below.

a. Results from the survey of Japanese universities by questionnaire

Related to the topic of "academic reforms of university governance and systems of management", (one of the principle topics addressed by the questionnaire) the following results were obtained.

The questionnaire produced responses from 327 university presidents and 576 deans of faculties. In their responses, 36% of presidents expected establishment of structures providing assistance such as a vice-president or an advisory support system. Further, 24.8% of presidents hope to get strong and wide powers for university management. Totally, we learn that more than half of presidents expected to strengthen their leadership role in regard to university governance. (Cf. University Reforms and Academic Governance, p.20)

In contrast, a similar proportion of deans (36.1%) did not expect to strengthen their powers of leadership within their faculties or adopt a role of faculty managers though 29.3% of deans do expect to establish a committee structure for faculty management." (Cf. University Reforms and Academic Governance, Yamanoi, p.21)

b. Results of seminars

b-1. The International Seminar

"All countries analyzed seem to experience some internal change. Models borrowed from management changes in private enterprises gained some popularity. The author of the U.S. study wrote 'Higher education has begun to borrow new business models from industry by downsizing, outsourcing, and reengineering.' In countries where the government played a strong supervisory role in the past, strong

efforts have been made to strengthen the power of the most senior managers in higher education (i.e. the rectors or presidents), and possibly to introduce boards."(Academic Reforms in the World, Taichler, p.230).

"Though the changes in the management of higher education, which are summarized as a 'stronger top-down mode in academic organizations', are less dramatic in Japan than in some other countries, the stress put on the academic profession seems to be most strongly felt in Japan, as is shown by the comparative study on the academic profession which was undertaken in 1992. It maybe that the tensions between the surviving classical ideal of academics and the changed conditions are most prominent in Japan."(Ibid., Teichler, p.230)

b-2. The Presidents' Summit

Kenneth P. Mortimer presented the keynote paper titled "Governance in the 21st Century University: The World is Changing Faster than the Governance System can Accommodate", defining the context of the discussion by participants in the Presidents' Summit as:

1. the rising importance of market forces; 2. globalization of science and technology; 3. increased importance of technology; 4. increased emphasis on educational outputs; and 5. integration of the university into large society. Based on his discussions, Mortimer presented four concluding observations: 1. Be mission centered, but market smart; 2. Realize that governance restructuring is radical treatment; 3. Make sure you understand your clients; 4. Use assessment to create change, not simply to record it. Presentation of the papers and discussion of many of the problems by the participants followed much of the agenda identified in the keynote address, though in many cases different emphases were observed, notable when dealing with matters related to academic governance.

In his concluding address, Robert Zemsky commented:

> "Those from the United States were more likely to embrace or be resigned to a world of markets in which enterprise is rewarded, students are treated as customers, and attention is focused on educational outcomes as much as educational process. Those from western Europe were more likely to define the same set of basic problems in terms of established practice and precedent, on the one hand, and of law, decree, and government regulation on the other. Those from Asia, in general, and Japan, in particular, were more likely to define basic issues in terms of the operational role of government and whether or not universities ought to be independent of the ministries that heretofore have been responsible for their well-being." (p.164)

b-3. The Three-Nation Workshop on Academic Governance

In the structure of academic governance, there is a clear distinction between change at the top level and at the lower levels.

"Such trends at the top level of governance reveal the strengthening of its influences in academic governance structure. On the contrary, at the middle level of governance, e.g. the deans, there is conflicting evidence in the three countries.

Middle level is raising in influence in the United States and Japan, while decreasing in Switzerland." (University Reforms and Academic Governance, Arimoto, p.142.)

"In general, we can recognize a comparable trend in the style of academic governance. Presidents and rectors are theoretically and actually expected to increase their leadership and influence on the administration and management in academic governance in all three countries. This trend seems to show that the academic governance is now shifting from the rector, who has incorporated the traditional style of leadership in European universities for many years as a result of imprinting academic guild, to the presidential-type leader, which developed in American universities as a result of introducing corporate management into the modern industrial society." (Ibid., Arimoto, p.143.)

"One general feature emerging from this comparison is that Japan and, to some extent, Switzerland, are clearly reforming, in the sense that hitherto "strong" bodies can see their influence erode, whereas bodies that had comparatively limited influence are seeing their roles increase. By contrast, reform in the USA does not amount to sweeping change in orientation, nor in new priorities. Rather, they largely reveal a "deepening" of the current inner logic of the system, with strong players reinforcing their influence, and secondary players being further sidelined." (Ibid., Grin, Harayama, and Weber, p.105)

c. Contribution of review papers to the report (forthcoming publication: University Reforms and Academic Governance)

4-3. Dissemination of results

Attention is probably paid to an assessment of success in communicating results and their implications to academic and policy-making audiences, within the host nations and cross-nationally. Research results were conveyed to scholars and policymakers through widespread distribution and circulation of the publications. While circulation alone does not ensure that all recipients are informed, it does appear that in this instance, the profile of the six-nation project has caused the results to be noted by a large part of the expected audience.

4-4. Perception of results across the national teams

Each country adopted the project's theme and therefore was involved in the pursuit of the same purpose of international collaborative research. It is both a limitation and a source of strength that each country has had different approaches to the same project's theme by reflecting its own history, culture, and climate embedded in the individual system but this has reinforced the benefits of the international studies

5. Conclusions

5-1. Experience and collaboration

a. A considerable body of research existed across the diverse topics embraced in this project. In this context, every team enjoyed abundant experience in terms of the background of discipline, culture, and environment. Every team could readily share the problems of higher education's massification stage with all other teams, as their preceding researches already provided a stock of relevant material each country. However, for the post-massification stage, direct experience was restricted to the American and Japanese teams and while these two teams could easily share their experience, other teams found some difficulties in appreciating some aspects due to their lack of experiences of this stage.

b. The fact that the collaborated researchers were drawn from fields of study caused some difficulties in establishing a common approach to the theme and topic. Nevertheless, it is clear that a loosely coupled consensus was rapidly gained in the sense that it was accepted that the theme and topic of the project should be approached from methodology of sociology or sociology of education; at the same time the opportunity was taken to employ other methodologies such as economics, management, history, comparative education, psychology, where this offered advantage.

c. Differences of the six-nation's culture were evident in their research. For example, there are clear differences between those countries having government-oriented higher education policies and those with market-oriented higher education policies. In this respect, it has become clear that differences in the relationship between government, university, and market (society) have a close relationship with policy and practice of higher education reforms. Considering this, every country has been able to observe their system's identity with different cultures and environments by participating in the project with the purpose of applying a common framework across each system.

5-2. Composition of the teams

The extent of mixing of researchers with policy makers and practitioners was not large in the Japanese team. Lower participation by policy makers did not appear to have any large effect on either the research process or the production of clear outcomes. In particular, there was no obvious impact on the amount of attention paid to education-economic links. Even though direct participation by policy makers was limited, financial support from central government to the Japanese team was substantial. The terms on which this support was provided implied that government ensured that a great deal of attention was paid to the education-economic links.

5-3. Implications for practice and theory

The main theme which higher education project dealt with was the problem of

higher education reform with a focus on the concepts of massification, post-massification, and administration and management. It is manifest that theory and practice were well connected, since every country tried to approach this theme from a perspective of both theory and practice. Martin Trow's model pointed out that higher education progresses linearly from the elite stage to the massification stage and finally to the universal stage. While this model seems adequate to explain the long-term trend of development, it does not seem able to account for the short-term developments that every system is now experiencing. For example, China is now at the elite stage according to the Trow model, which puts weight on a quantitative approach; but if we examine it from a qualitative viewpoint, China is now facing conflicts similar to those frequently seen in the post-massification stage in the United States and Japan. In these countries, higher education reforms are being conducted in the realms of research, teaching, social service, and administration and management from perspective of market-driven mechanism and public accountability as well as that of globalization and knowledge-based society.

5-4. Policy related to economic development

Some consideration has been given to the links between higher education and economic growth. The most direct discussion was provided by Shinichi Yamamoto in his paper in University Reforms and Academic Governance (2001) where he wrote:

> "This rapid massification was caused both by the people's desire for higher education and by the industry's demand for better qualified workforce in the field of engineering and its related field. As a result of this, Japan succeeded in keeping a large number of engineers and technicians, which were helpful for the rapid economic growth in 1960s and 1970s. The good combination of Japanese-style management and life-long employment of engineers and technicians helped the Japanese economy and industry far greater than had been expected. Uniformity worked much better than individual creativity for the mass-production system of manufacturing industry at that time." (p.47)

Knowledge based society has great expectations of academic productivity. In this context, it is clear that academia is increasingly indispensable to social development. This project paid attention from the outset to the nature of knowledge and saw from the viewpoint of sociology of science that academia could contribute to society through the development of knowledge. Accordingly, higher education reform was thought to be the most effective way to link the contribution of academia to social development, and especially to economic growth. Academics can contribute to social development by generating sufficient academic productivity in the realms of research, teaching, and social service that are considered as knowledge-based academic work. Academic productivity consists of productivity in the combination of research, teaching, and service, and so academic reform is needed to optimize such productivity.

Comparative study of the six countries from the relationship between university and economic growth shows similar characteristics in spite of their different stages of

higher education development. It is understandable that all countries have a similar problems even though they differ to the extent that the United States and Japan are now confronted with the post-massification stage, Singapore, Germany, and Switzerland with the massification stage, and China with the elite stage. In particular, all countries are addressing the reform of administration and management in higher education as an important problem in order to promote the connection of academic productivity and economic development under the pressure of social change, especially that arising from globalization and emerging knowledge based societies.

If Japan is cited as a case study, a close relationship is recognized among the factors of market mechanisms, deregulation of the national universities, competitive ability of institutions, and academic productivity. This extends not only to undergraduate reform but also to institutionalization and to reform of graduate schools. In this context, the focus of the project should move away from the problems of massification and post-massification at the level of undergraduate education to the problems of massification at the level of graduate education. In fact, the role of graduate schools is considered to be increasingly important in promoting academic productivity of both research and teaching. Increase in research productivity is perceived as linked directly to economic growth. Explicitly, in the coming knowledge-based society, research productivity that is closely related to discovery of new knowledge is identified as a means of enhancing economic as well as societal development.

From previous studies in the sociology of science, the United States is now recognized as the world's pre-eminent the center of learning. The reason is identified with its institutionalization of the graduate school with the intent of integrating research, teaching, and learning. The graduate school, established in the United States in 1876, was based on German model and was characterized by a close integration of research, teaching, and learning. Japan imported the American graduate school model after World War II. Now, some 50 years after its introduction, substantial reform, on the basis of the evolved American model, is being undertaken in Japan to promote academic productivity. This reform is expected to exert a significant effect on economic growth later in 21st century following the precedent established by America in the 19th century that led to economic growth in the 20th century.

Recent proposals by the Ministry of Education for structural reforms in universities and colleges in Japan are closely related to achieving reform of graduate education in response to the needs of globalization and a knowledge-based society. There are three proposed reforms: development of the 30 best universities to achieve the highest international standards; strengthening links between academia and industry in order to create new industries, and providing training for professionals at graduate schools. All these plans are connected to the linkages between higher education and economic growth. In sequence, the first is focused on academic productivity to the extent that it is comparable and competitive to the existing centers of excellence in centers of learning throughout the world; the second seeks to locate

academia at the center of emerging knowledge-based society and intends to create new industries and jobs by way of connecting academic work based on the discovery and production of knowledge with industries and businesses. It is clear that even greater contributions from academia to social development, and especially to economic growth, are expected from its involvement in higher education reform.

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University Reform and Governance in Germany

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1. The International Trends

1.1 Changing Styles of Governance

Governance in higher education underwent somewhat similar changes in many countries during the 1980s and 1990s. This was often interpreted as a consequence of a loss of confidence in the modes of governance of the past. The self-regulation of the academic profession was viewed as being to lenient to the low-performing academics and too much favouring an 'ivory-tower' university. The participatory model of giving a say to junior academic staff, students, technical staff, etc. was critisized as too time-consuming and vulnerable to politicisation. A strong role of the government was viewed as reinforcing bureaucratic statement and over-steering of the system in certain directions. Subsequently, the 'Zeitgeist' of the 1980s and 1990s favoured 'new public management', managerialism and market-oriented steering devices.

In most of the relatively wealthy industrial countries where government traditionally played a strong role in the supervision of the higher education system, changes of governance took place in the 1980s and 1990s which headed more or less towards the same direction:

- Governments confined their role vis-à-vis higher education to major target-setting, establishing a managerial and incentive oriented steering logic, and towards undertaking long-term quality supervision.
- The individual institutions of higher education were given a stronger role in opting for specific profiles within the national frames of target-setting as well as a higher degree of autonomy as regards administrative procedures, whereby managerial power was increased and the role of academic self-regulation was reduced.
- In the relationships between government and the institutions of higher education and in the framework of governance within institutions of higher education, incentive mechanisms began to play a stronger role.
- Communication and cooperation between higher education institutions and the outside world were extended and intensified, thus serving as a substitute of governmental counterbalance to the 'ivory-tower' inclinations of university autonomy.

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- Systems of regular evaluation were established both in order to increase the self-reflection and the continuous self-improvement as well as in order to provide an information base for output-based control of higher education.

1.2 Changing Contexts

Styles of higher education governance did not just emerge in a trial and error process as far as strengths and weaknesses of governance per se are concerned. Rather, most actors involved and many experts tend to claim that changes of governance in higher education were also a response to changing contexts. It might be justified to summarize the various arguments under three headings: 'massification of higher education', 'knowledge society' and 'globalisation'.

'Massification' comes into play notably in three respects:

- Governments are not ready to increase funding of higher education proportionate to the growing number of students and the rising other functions of higher education. Therefore, pressures grow for efficient use of resources.
- The more higher education expands the more it takes over functions of teaching, research and services which are expected to be more directly targeted to economic and social needs than the traditional 'elite' functions for which a high degree of academic self-regulation had been accepted as appropriate.
- In the wake of the expansion process, an increased diversification of the higher education system tends to be viewed as necessary. Thereby, decreased governmental control, increased managerial power within the individual institutions of higher education and stronger incentive steering are considered means of stimulating diversity.

It became a conventional wisdom to believe that knowledge tends to expand substantially and to be more socially relevant. 'Knowledge society' is the most commonly used term to depict those presumed trends. Reforms of governance in higher education are often justified as needed in this context, but a close look reveals that the respective references made to the 'knowledge society' are extremely heterogeneous.

On the one hand, the view is widely held that the top quality sector of research is crucial in becoming the major productive force of the knowledge society; on the other hand, some experts believe that the knowledge society requires notably 'mass' higher education as a means of upgrading competences in middle-level jobs. On the one hand, the knowledge society is viewed as increasing utilitarian pressures on higher education; on the other hand, claims are made that higher education provides 'innovation' most likely if it is not driven by utilitarian views.

Finally, 'globalisation' became a major catch phrase in the 1990s to advocate reforms of governance of higher education. As knowledge more easily transgresses national boundaries and as the labour market of graduates and also the academic labour

market become more international, the individual universities are likely to be less protected by national regulatory systems. Notably the high-quality sectors of higher education are expected to be shaped increasingly by global competition for excellence. This is claimed to create a need for growing market-oriented elements in higher education and to increase pressures for international convergence of national systems of steering, governance and management.

2. Debates and Reforms in Germany

The major directions of debates and reforms in higher education obviously are similar in those industrial societies which have been characterized in the past by a strong supervisory role of government, a strong role of academics in internal decision-making and by a weak position of the university leadership in public higher education. This certainly holds true for the majority of European countries and for Japan.

This notwithstanding, we observe national characteristics in the debates and the directions of reforms. As an observer of the respective debates in various countries, I am convinced that the German debates and reforms of governance in higher education can be characterized as follows:

(1) Moves towards the international trends of reform patterns of governance started relatively late and were relatively slow and cautious in Germany. This also holds true for Japan.

(2) The growing internationalisation and globalisation of higher education often is claimed in Germany as a major force for reforms in governance.

(3) The German tradition of a more or less even quality of all universities has a strong impact on the debates and reforms regarding governance.

(4) The debates in Germany on reforms of governance in higher education put a relatively strong emphasis on the issues of tuition fees, changes of the academic profession and the involvement of external representatives in the governance of higher education institutions.

(5) Reservations are strong in Germany as far as the power and status of university presidents and deans are concerned.

Without presenting many details of the debates and reforms in Germany, these five major lines will be explained in this article.

3. The Late, Slow and Cautious Process of Change of Governance

The Federal Republic of Germany belongs to the countries characterized by a strong role both of governments and the academic profession in shaping the inner life of the

universities until in the 1960s, while the deans of faculties and rectors were prima inter pares without substantial power. Around 1970, administrative reforms were undertaken which reserved students, junior academic staff and technical staff about half of the votes in committees; in addition, the role of university rectors or presidents was strengthened somewhat. These reforms remained controversial, but all key actors in Germany agreed not to undertake major administrative reforms in the 1980s, because all energies should be reserved to cope with the rising student numbers in the 1980s as a consequence of a demographic heap.

When eventually time seemed to ripe to discuss administrative reforms in German higher education, the political system of the German Democratic Republic collapsed, and Germany was united. This, ironically, had the effect of preserving the Western German system the way it was and to adapt the East German higher education system to the West in the early 1990s.

Since about the mid-1990s, the mood has changed. The debates about the need for reforms in higher education become dominated by the argument that German higher education was not well prepared for the trend of globalisation in higher education. In order to fare well under these conditions, two major directions of change were advocated:

- Changes of the structures of course programmes and degrees and various conditions of the academic career in order to make German higher education more attractive for foreign students and academics.
- Changes in governance and management in order to increase the potential of the individual institution of higher education to be a more successful strategic actor in an increasingly international and global competitive setting.

In the German Federal system, the individual *Laender* (states) are responsible for the supervision of higher education institutions and are the prime funding sources of higher education. However, the Federal government shares about half of the financial means for construction in higher education and research promotion as well as about two-thirds of student aid. An elaborate system of 'joint tasks' of the Federal and the *Laender* governments was established in the late 1960s, which ensured on the one hand that higher education reforms all over the country went into similar directions and that the overall system remained sufficiently homogeneous to allow for student and staff mobility and cooperation between institutions across Germany, but also made it possible on the other hand that individual *Laender* pursue somewhat different approaches. Over the years, however, the system of coordination between the *Laender*, between the Federal and the *Laender* governments as well as between government and academia turned out to be so complicated and time-consuming that hardly any consensus could be reached about major reforms.

The *Hochschulrahmengesetz* (Framework Act for Higher Education), for the first time enacted in 1976, became a major instrument in determining the extent to which the

structures and the administration of the higher education systems ought to be uniform in Germany or specific for individual *Laender*. This Federal legislation can be only passed if the national parliament and the chamber of the *Laender* agree, but once it is passed it forces the *Laender* to adapt their legislation to the framework legislation. Both, the first enactment in 1976 as well as the major reforms of the Framework Act in 1986 and 1998 made clear that many key issues of governance and administration were not harmonized through Federal legislation but rather were left open for diverse options of the individual *Laender*.

This, in theory, makes it easier for the individual *Laender* to take decisions quickly. On the other hand, the actors tend to compare the reform proposals made within the individual *Land* to the debates and actions and other *Laender*. As a consequence, few *Laender* are inclined to undertake clearly exceptional steps and to move rapidly.

4. Responses to Perceived Pressures of Internationalisation and Globalisation

Higher education in Germany, as well as in most other countries, was characterized in the past by the contrast between a strong cosmopolitan identity of the majority of academics and manifold international academic cooperation on the one hand and on the other hand a national system of structures, curricula, governance, and funding. There existed in Germany a relatively well-funded system of international academic exchange. In the late 1980s and early 1990s, the increasing popularity of student mobility in Europe stimulated by the ERASMUS programme triggered off an extension and improvement of services for international cooperation and mobility and a more strategic reasoning of the higher education institutions about the extent to which all their activities are embedded in international trends of higher education.

In the mid-1990s, a shift of focus got momentum. Some observers suggest that this was triggered off by the first meeting of heads of state and government from Europe and Asia, when the European representatives became aware of the fact that scholars and students in the newly emerging economies in Asia hardly took notice of higher education in most European countries.

Notably, a need was felt to establish structures of course programmes and degrees similar to those prevailing outside Europe and being strongly influenced by the U.S. or the UK models. While since the mid-1970s increased cooperation and mobility within Europe had been based on the belief that diverse structures should be preserved and diversity within Europe was an asset, a contrasting view spread rapidly since the mid-1990s and eventually led to the joint 'Bologna Declaration' of about 30 ministers of education in 1999 that a convergent structure of programmes and degrees was needed

in Europe. According to the 1998 Framework Act of Higher Education, German higher education institutions can establish a bachelor-master stage structure of programmes and degrees along or instead of the old programmes and degrees which require a longer period of study up to the first degree.

Many institutions got involved in this reform process, but experts estimate that less than three percent of students at German institutions of higher education were enrolled in these new programmes in 2001. They expect a rapid increase, but it seems to be uncertain whether the stage system will substitute the old structures completely.

According to the Framework Act, all new course programmes following the Anglo-Saxon model of a bachelor-master stage system

- are required to introduce a credit system instead of the traditional examination system in Germany with a strong emphasis of final examinations;
- have to be accredited.

For many years, ministers of education of the *Laender* jointly approved framework curricula for each discipline upon recommendation by a respective national committee composed primarily by professors and government representatives as well as by representatives of students and professional practice. The individual universities had to present their curricula in the form of examination regulations to their respective ministry of education for approval. For the purpose of approval of the new bachelor-master programmes, a national agency for accreditation was established subsequent to the revision of the Framework Act of 1998 in charge of setting guidelines for accreditation and in order to approve accreditation agencies which actually take over the process of assessing and accrediting the individual programmes.

The concerns about the future of German higher education under conditions of globalisation were often referred to as well in efforts to reform the career patterns and employment conditions of the academic profession. It should be noted that the regulatory system for the academic profession is nationally uniform in Germany, because the key issues are regulated by the Framework Act as well as by the civil service regulations which are a national affair. Three directions of changes often were advocated in recent years:

- The junior academic career was criticised as not being attractive, but burdensome and discouraging independent and innovative thought due to the facts, first, that academics as a rule have to pass a *Habilitation*, i.e. an advanced doctorate, after about five years of academic work and another major monograph in order to qualify for professorial positions. Second, there was not any title and position in Germany similar to an 'assistant professor' in the U.S. system. A proposal was widely supported to introduce a junior professorship.
- Second, the view was widely shared that salary increments for professors based on years of service ought to be abolished and substituted by performance-based rewards (e.g. numbers of students and examinations, achievement in research, etc.).

- Third, proposals were made that institutions of higher education more frequently than in the past should make decisions about employment and resource allocation only for a limited time-span, e.g. employ a higher proportion of professors on 5-year or 6-year contracts and guarantee facilities and staff support for the professors' work only conditionally for periodical evaluation.

Finally, as already was pointed out and as will be discussed in detail below, the globalisation was viewed as calling for reform of governance. The individual institutions of higher education should have more leeway for action in order to take care for their individual profile and for the quality of teaching and research, and, thus, to be more successful in the presumed competitive globalisation of the higher education system.

5. Increasing Diversification

Higher education systems vary according to the extent of homogeneity or diversity and according to the major modes of diversification, i.e. the role played by levels of programmes and degrees, by types of higher education institutions and by differences of substantive profiles or of the quality and reputation among institutions and programmes of formally the same type. For example, the system of higher education in Japan tends to be viewed as highly diversified by stages of higher education programmes (e.g. bachelor, master), types of higher institutions (universities, junior colleges, technological colleges) and by a steep hierarchy of the individual institutions or course programmes as far as the quality of students at entry and the reputation of the university or the faculty (department) are concerned.

In Germany, the view was widely shared in the past that the distinction between universities and *Fachhochschulen* (i.e. colleges providing four-year programmes with an applied emphasis) was the major mode of diversification. On the other hand, differences between universities were regarded as relatively small, as far as the quality of research and teaching is concerned, and the individual universities were not interested in cultivating specific profiles. This was viewed as beneficial in stimulating mobility of academics and students across universities within Germany as well as providing all regions in Germany similar services through the higher education system. Increasingly over the last few decades, however, a vertical (quality differences) and horizontal (profiles of individual institutions or departments) diversification of universities was called for. The view spread that teaching and learning as well as research would improve in quality, if institutions of higher education competed more fiercely for resources and if some institutions eventually clearly excelled others in academic reputation and resources.

Currently, changes are underway in the funding system of public universities in Germany (which accommodate about 98 percent of students in Germany). The individual *Laender* vary to some extent both in terms of the modes of funding and the timing of the introduction of the new system. However, the major directions of change are similar:

- a move away from annual budgets towards pluri-annual funding guarantees,
- a substitution of item-line budgeting by what is called in Germany 'global budgets', and
- a diversification of funding between the individual universities partly based on performance-related measures (i.e. number of students and graduates in various fields of study, amount of contract research, etc.) and partly based on specific aims and needs as agreed upon between the universities and their respective state government.

Several German *Laender* have already moved or are in the process of moving towards pluri-annual contracts between the state and the individual universities, whereby the resource allocation takes into account both indicator-based information as well as specific aims and needs of the individual higher education institution.

It is premature to assess the extent to which this will reinforce diversity in higher education. It is worth noting, though, that the tradition of a fairly homogeneous system continues to put its stamp on the debate as far as a desirable diversity is concerned. Calls for profiles of individual institutions, i.e. horizontal diversity, are made at most generally and only in passing. On the other hand, the debate tends to focus on vertical quality differences, whereby those not being the front-runners tend to be blamed as low quality and potentially superfluous. It remains to be seen whether differential funding and the call for diversity will continue to be viewed merely as a threat and sanction for those not at the top or whether diversity eventually will be perceived as desirable pattern of the higher education system.

6. Major Trends and Specific Features of the Reform of Governance

Nation-wide uniformity of the governance of higher education seems to decrease continuously in Germany. The *Laender* vary more and more in the way they shape the regulatory system of higher education. The major directions of change are similar, but the specific regulations vary strikingly.

All *Laender* have moved or are in the process of moving towards the negotiation of pluri-annual global budgets whereby governments retreat from involvement in many daily affairs of management within the higher education institutions. For example, governments gradually seize from being involved in detailed decisions about budget allocation for personnel and other expenses.

It seems likely that governments also will discontinue their involvement in the selection of professors. Traditionally, universities presented a list of three candidates, and governments were free to appoint the candidate on top of the list or the second or third candidate, or even to send the list back thereby calling for a new search.

All higher education laws of the *Laender* strengthen the powers of leadership on institutional and departmental levels. In most cases, the managers become responsible for personnel and budget matters, while the elected bodies remain in charge of general policies, the election of the presidents/rectors and deans as well as possibly the early termination of their terms in office.

In all laws, some kind of evaluation is made mandatory. However, the legislation of the *Laender* varies strikingly in this respect. Teaching-related evaluation is generally called for, but only some laws refer to evaluation of research as well. Some laws put emphasis on the assessment of courses and professors by students, while others address a diversity of approaches. Some *Laender* call for a combination of self-assessment and external evaluation, whereas some others hold the deans themselves responsible for evaluation, etc.

There are also some limits as far as the increase of the role of the individual institutions of higher education is concerned. For example, in the 1970s the Federal Constitutional Court had reinforced that those passing the *Abitur*, the leaving certificate of academic secondary education, have the right to get access to all fields of higher education except for very specific circumstances. Therefore, governments do not advocate a system these days according to which a single university or department has the right to select all the students themselves according to their own criteria.

Similarly, the regulation is upheld that students enrolled in degree programmes at German public institutions of higher education are not charged any tuition fees. Governments of some *Laender* favour whereas other object the introduction of tuition fees. As long as no clear majority favours the introduction of tuition fees, the Framework Act will remain unchanged according to which no tuition fees are charged.

7. Limits in the Role of the Leadership and Emphasis Placed on the Role of External Representatives

The reforms underway in German higher education as far as governance is concerned are clearly influenced by the increasing popularity of managerial power in higher education which can be observed in many countries. Governments and rectors or presidents praising the growing 'autonomy' of higher education tend to have in mind the growing power of the university leadership, often at the expense of the traditional rights of the academic profession in the academic self-administration.

In Germany, as already mentioned, most *Laender* governments and laws clearly strengthen the role of the university leaders, i.e. the presidents (in some Laender) and rectors (in others). Also, the deans, i.e. the heads of faculties (departments), now often have three-year terms instead of a single year in the past, and they are now in charge of financial matters as well as the daily affairs of personnel issues.

However, as a rule, bodies composed of representatives of professors and other members of the universities remain in charge of electing the rector or president, even if other actors are involved in the selection of candidates. Also, bodies of professors and other members of the departments elect the dean. Deans remain part-time involved in teaching. Presidents tend to be better paid than almost all professors, but are not as privileged financially as for examples university presidents in the U.S. or vice-chancellors in the United Kingdom. Deans at German universities continue to receive only a marginal supplement to their regular professorial salary.

Although many reforms are advocated because a clear incentive system is viewed to be more successful in stimulating academic achievement than the traditional modes of socialisation and honour, legislators and governments in Germany are reluctant in creating visible financial rewards for academic leaders as well as in establishing a visible status gap between the university leadership and the academic profession.

There are other indications that the loss of trust in the wisdom of governmental planning and the wise self-regulation of the academic profession has not led a to high confidence in the wisdom of a strong university management either. More or less all the higher education laws of the German *Laender* enacted in recent years provided for the establishment of university councils, either councils of individual universities or councils for all higher education of the respective *Land*. The councils differ in their tasks and functions, but in many cases they obviously expected to play an enormously strong role.

One probably could argue that German higher education is expected to be more strongly steered than in the past by the invisible hand of competition, incentives, indicator-based funding, etc., but hope in the wise decision of visible hands has not vanished. As confidence in the various visible hands of the past is limited, the new university councils seem to be established in order to create a new relatively wise visible hand, so that the complex interplay of the various actors and incentive mechanisms might lead to wiser options than any less complex settings.

8. Unresolved Issues

German higher education started moving from the old coexistence of a strong planning and bureaucratic government on the one hand and strong academic self-administration characterized by a substantial power and by academic freedom of the professoriate on

the other hand towards a new system at relatively late point in time. For example, similar steps were undertaken in the Netherlands more than a decade earlier.

Obviously, the new German system of governance in higher education heads in the same direction as we noted in other countries: a stronger emphasis on incentive steering, market forces and competition, a stronger emphasis of government on target setting and supervision of the outcomes instead of bureaucratic involvement, a managerial role of university and department leadership as well as an increase of evaluative mechanisms both serving self-reflection and control.

The steps towards those directions started relatively late and remained somewhat cautious in some respects. As many reforms of governance are not regulated nationally in Germany, the reforms are diverse, and many steps are still underway.

It is still premature to predict the results of the current reforms of higher education governance. It certainly would be interesting in the future to compare higher education governance in countries such as Germany, the Netherlands, Sweden, France, Japan, etc. according to the following four questions:

(1) What distribution of power in higher education does emerge? Does the university management become the strongest actor, or do we move, instead of the frequent call for clear modes of decision-making and management, towards an increasing complexity of actors and decision-making processes which make very clear and visible actions coordinated by individual actors even less likely than in the past?

(2) What role of the university leadership on institutional and department level becomes dominant, and how is it linked to a changing role of the academic profession? Do the managers become low-key controllers of a market and incentive system, who just have to make sure that the market and incentive systems are visible and not undermined, whereby the professors as homines oeconomici are successfully driven by the invisible hand? Or will the managers be powerful actors who direct the professors like assembly line workers of the academic machinery? Or will the managers be the smart moderators with individualized strategies of leading the individual strong, but socially not responsible professionals? Or what other roles do emerge?

(3) To what extent will leadership in higher education move towards a generalized managerial role without substantial knowledge and vision of the substance to be managed, or to what extent will they become leaders knowledgeable of what they are managing?

(4) What role will evaluation or any other kind of systematic information gathering on the substance and quality of academic processes, results and impacts play in the future governance of higher education?

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University Reforms and Academic Governance in Switzerland

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1. Introduction

Entering the third millennium, higher education is confronted with major challenges, and dealing with them will require substantial rethinking of its missions, its role in society and its mode of operations. These challenges are numerous and varied. Some are connected to the *social demands* facing higher education (for example, the long-term increase in enrollments, the heightened importance of knowledge in modern societies, the diversification of the range of course content to be offered, etc.); some clearly take the form of *constraints* confronting higher education institutions (e.g., reduction of state support for education, increasing standards in terms of accountability, etc.); finally, some of these challenges can be interpreted less in terms of additional burdens or tighter constraints than in terms of *opportunities*, such as new avenues opened by the use of modern information technology and the renewed sense of responsibility for higher education to help social actors make sense of the rapid change in many aspects of political, social, cultural and economic life. For all these reasons, higher education is at a turning point; this is bound to have major implications for the *governance* of higher education institutions.

Switzerland[1] is no exception. The total number of newly enrolled students has nearly doubled and the number of students altogether has increased by nearly 30% between 1985 and 1998. Although the number of teaching staff increased, it did not catch up with this rapid rise in university enrollment. Paired with a clear cut in the federal and cantonal budgets allocated to education and science as a result of the economic slowdown in the early nineties, Swiss universities were asked to improve efficiency and to contribute more actively to the society as a whole beyond their fundamental missions of the creation and transmission of knowledge. Swiss universities attempted to react to these pressures by strengthening cooperation among them, by offering new programs at the master's level and in the framework of continuing education reinforcing the industry-university tie and also reviewing their governance.

As Peterson (1995: 140) observes, "Writing about structure, governance, and leadership of a university in a time of stability is a daunting task. Doing so in a period

[1] See Conseil Suisse de la Science (1993), Kleiber (1999) for the case of Switzerland.

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of reform is probably foolish." The extreme complexity of the issues at hand are related to the fact that "[...] universities are at an unusual confluence of some basic social, political, economic, and technological forces which threaten to reshape the basic processes and structures of our institutions" (*ibid.*, 141). Consequently, we cannot hope to do justice to this complexity, and we have deliberately chosen to focus on one issue - the relationship between the *responsiveness* of Swiss universities to social demand in a broad sense, and their *responsibility* towards society, in the context of *university governance*.

Section 2 presents the concepts of "responsiveness" and "responsibility" and introduces our central research question. Section 3 discusses methodology. Section 4 presents a selection of the results of an analysis of legal texts and Section 5 presents the results of a questionnaire survey on higher education. Section 6 contains a comparative overview of the priorities of reform in university governance from the perspectives of Switzerland and Japan. Section 7 concludes. It is important to note that this study is not intended as a detailed descriptive account of the Swiss higher education system; nor is it a general essay on the broad question of university governance in a time of change. Rather, it is intended as an attempt to relate a set of very fundamental questions about university governance and the actual practice of everyday decisions made in university governance - as it were, an exercise in bridge-building.

2. Responsiveness, responsibility and accountability

As mentioned above, higher education is required to meet many challenges, each of them very demanding and specific in its implications, all at the same time. The state itself is one of those institutions that has to discharge a large number of complex duties, and the state apparatus normally enjoys the use of a wider range of instruments to act upon the situation; by contrast, the universities have much more restricted courses of action at their disposal.

It is also the case that the university is one of the oldest surviving institutions of western history. It is actually older than the modern state and has shown an extraordinary capacity for adaptation and change. It is precisely some of the aspects of this *capacity for change* that lie at the core of our research project.

Therefore we focus on one aspect of the process of change that we believe to be relevant to just about *all* forms of implementation of change. In order to identify this core dimension of change, it is useful to reconsider the list of challenges in terms of two concepts: responsiveness and responsibility.

On the one hand, universities are expected to be *responsive* to society's needs. These pertain to rising enrollments, diversifying course content, increasing of the range of courses offered, guaranteeing economical and transparent operation, safeguarding the democracy of access and of internal structures all this while of course ensuring relevance and quality (or, to use another popular term, "excellence") in teaching and research. In addition, universities are expected to fulfill an ever-expanding list of missions that have less and less to do with teaching and research,

and more and more with the provision of the fundamental aspects of quality of life. Meeting these multi-faceted demands is the *responsiveness* side of the role of universities.

On the other hand, while responding to society's demands, universities also have a *responsibility* that may not be fully captured by its operation as a responsive institution. Because society is changing, it needs frames and references for social, political and economic debate, and construction of meaning, identity, and consensus on policies. The universities have a key role to play in providing these. We have noted that some of the duties that higher education is entrusted with can quite easily conflict with each other. In these cases, universities must exercise their sense of responsibility vis-à-vis society, by adopting solutions that maintain and reassert the intellectual, ethical and social values on which they are built. This reassertion precisely constitutes one way of exercising their leadership role in society. It can sometimes mean selecting ways in which change should take place, sometimes encouraging and advancing change, but also sometimes resisting it.

Responsiveness and responsibility are present, at some degree or other, in each of the challenges listed above. Hence, meeting these challenges and engineering the corresponding changes calls for recurring arbitration between the requirements of responsiveness and responsibility; what is more, the arbitration must be a transparent one and to play by certain formally and socially accepted rules.

Much still needs to be investigated about the relationship between responsiveness and responsibility, because their ubiquitous confrontation in university policy, particularly in a context of change, implies that this relationship must be a rich and varied one. However, an integrative inquiry of this relationship would far exceed the scope of our project. Rather, we are interested in *how the joint presence of responsiveness and responsibility is accommodated in university management and in particular, whether the joint exercise of responsiveness and responsibility allows for accountability.* In other words, we wish to investigate whether processes (and the structures within which processes take place according to formal procedures), in higher education institutions, allow universities to be *responsive*, to be *responsible*, to *acknowledge the complementarity between responsiveness and responsibility*, to *arbitrate between them when necessary*, and to do it in such a way as to *demonstrate accountability.*

In this study, *accountability* is largely synonymous with *transparency*, but implies a little more than generic transparency; specifically, the notion of accountability includes two conditions[2]:

- First, an explicit acknowledgement of the social actors to whom one is held accountable (e.g., the local parliament; taxpayers; students);
- Second, a commitment to play according to certain rules that are socially, politically, legally and scientifically legitimized (e.g., the adoption of recognized scientific criteria in the evaluation of projects and people, instead of nepotism and power plays), and to make a redress whenever it is found that this is not the case.

[2] Different authors stress different aspects of "accountability"; see e.g. Berdahl and McConnell (1994).

This research also aims at contributing to the efficient governance of universities in a context of change. As Cameron and Tschirhart point out (1992: 88), "some evidence exists that managers and administrators can adapt to these [changing] environmental conditions by responding appropriately". This gives rise to a set of questions, pertaining not so much to *positive* processes and structures, but to normative stands about them, such as:

- How do stakeholders judge existing processes and structures in terms of their capacity to achieve responsiveness and responsibility in a context of change?
- Do stakeholders diverge in their views about the re-engineering and re-structuring required?
- What are the governance strategies, decision processes and organizational structures that can be advocated on the basis of answers to the preceding questions?

This second set of questions is therefore intended to elicit answers that can help sketch out principles of the *best practice of university governance* in a context of change. The fact that universities must *respond* to changing social demand is, of course, well-known and lies at the core of just about all the literature on university reform; the reciprocal fact that universities also have *responsibilities* towards society (which are not fully captured by their responsiveness role) is also recognized (the 1998 *Glion Declaration*). Analytical work focusing on the links between responsiveness and responsibility is much harder to find. When the question is further specified as that of the integration of the responsiveness-responsibility complex into processes and structures, there is an almost complete dearth of research. Therefore, there is little in the way of existing literature to bank on, implying that this study, to a large extent, will have to venture into mostly uncharted territory. More specifically, the precise issue of how university governance can be responsive and responsible in a context of change, particularly when these two principles conflict with each other, seems not to have been formally analyzed, whether in theoretical or empirical terms. As a consequence, this report has an exploratory character, with all the risks and opportunities inherent in this type of research.

3. Methodological aspects

3.1 Key categories

We are interested in governance in the context of change, and hence in the way that governance itself changes to reflect macro-level societal change. Change affects structures and procedures, but characterizing them, in the final analysis, must be based on the identification of what actors *do*. To the extent that responsiveness and responsibility are principles that ought to be exercised as characteristics of the decisions made by actors in the university system, these actions themselves must be placed at the center of the empirical observation. These are the actions we call *acts of governance*. Examples include appointments to tenured positions, creation or termination of programs of study, drafting of yearly budgets, etc. Hence, a small

selection of *acts of governance* are investigated in this study, and responsiveness and responsibility are evaluated with respect to such "acts".

Nonetheless, *elements of structure* do exist within the universities, and they do exercise the decision-making power that manifests itself through *acts of governance* - as such, they need to be featured in the study. *Elements of structure*[3] (noted "EoS" below) are distinct from *structure* in the sense that they are not given *a priori*, but emerge only as the locus of specific acts of governance. For the sake of convenience, formal structures (e.g., the Council of Faculty Deans, the University Council, the Rectorate or Presidency) are referred to later *in lieu* of *elements of structure*, but these are mere institution-specific proxies for the broader (and presumably less variable) *elements of structure* which are present in most institutions and which carry out acts of governance.

At the same time, some *groups of stakeholders*, though not formally part of the structural bodies of universities, are affected by reforms in university governance, and the way in which their positions change as a result of reforms are a further indicator of the degree to which *responsiveness* and *responsibility* are actually practiced. These stakeholders can be defined in sufficiently broad terms in order to represent relevant groups across specific contexts and still constitute relevant components of the analysis. These are the *civil society*, including business and public opinion; the authorities or the *state*; *tenured professors* as a professional corporation[4]; *students* and non-tenured research and teaching staff.

Civil society and *students* are groups whose relevance is fairly clear and does not require further discussion. However, the role of the other two groups must be pointed out, since it reflects specific power structures within the Swiss higher education system. The importance given to the *state* as an actor in the field of higher education reflects the fact that in the Swiss university context, its role has always been, and remains, a central or even near-monopolistic one, contrary to what can be observed in the United States. The importance of *tenured professors* as stakeholders reflects the fact that *tenure track positions* are comparatively rare in Switzerland, although the pattern can vary, not only across universities but also between faculties (e.g., Law, Sciences, Arts, etc.) within any given university[5]. It is often the case that time-limited master-assistant positions, though roughly similar to assistant professorships in the north American academic system, imply comparatively fewer perspectives, let alone guarantees, of future academic employment. Hence, a major

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[3] We define EoS by their functions: EoS maintaining links with non-university community (e.g. "Academic Council"); EoS maintaining links within the university (e.g. "University Council"); EoS reserved for tenured Faculty members (e.g. "University Senate"); EoS carrying top decision-making power (e.g. University Rector or President); EoS bringing together a limited number of actors with decision-making power within the university (e.g. Council of Faculty Deans); EoS with decision-making power at the Faculty level (e.g. Dean, Faculty Council [within a Faculty]).

[4] In this context, the word *guild* could be quite appropriate.

[5] *Tenured* means, in this context, holding a work contract without an explicit time limitation or a specified duration, which is normally renewed automatically at regular intervals up to retirement age.

gap separates intermediate positions from tenured professorships, reinforcing the strategic relevance of the latter, and explaining why appointment procedures are, particularly in Switzerland, such a key dimension of governance. The reader may note the absence of lecturers and researchers in our groups of stakeholders. This absence is merely a consequence of the point just made: Not only do non-tenured lecturers and researchers have few, if any, secure job prospects; they also, by and large, enjoy no more influence in university governance than students themselves. *Acts of governance*, *elements of structure* and *groups of stakeholders* therefore emerge as the key categories in our investigation, and they are given greater or lesser prominence in the analysis of legal texts and the gathering of survey data.

3.2 The analysis of legal texts

For this analysis, we have decided to look at the most recent version of the legal texts regulating the operation of nine Swiss cantonal universities[6] (Geneva, Lausanne, Fribourg, Neuchâtel, Berne, Basel, Zürich, Lucerne, and Saint-Gallen)[7], and to compare it with the version previously in force. It should be noted that this analysis deals only with the nine "cantonal" universities, and not with the two Federal Institutes of Technology[8]. The reasons for this are the following. First, the legal standing of the Federal Institutes of Technology is fundamentally different from that of cantonal universities. Federal Institutes of Technology fall within the purview of federal authorities, and the notion of the "state" and "civil society" applying in their case is therefore different Second, Swiss Federal Institutes of Technology, though endowed with a strong and centralized presidency, are made up of fairly independent units (called "institutes").

A comparison between these two versions with respect to specific *acts of governance* reveals the direction in which a change has occurred in terms of the degree of influence of different stakeholders on these particular acts of governance.

In order to highlight change, in the first step, we extracted from legal texts the information on the "Changes in the appointment and composition of EoS", the "Nature of change in the extent of competencies", and the "Magnitude of change in extent of competencies[9]" for each EoS. The resulting matrix provides a bird's eye view of the evolution of the role of key EoS in each university, but to the extent that it is mostly a reformulation of provisions contained in legal texts, it only goes part of the way in interpreting the role of the social and institutional actors that this study intends to investigate. To estimate how these roles have changed, a second two-way table was designed, focusing on the *stakeholders' formal presence, or representation,* in a given

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[6] The recently created Università della Svizzera italiana having been omitted owing precisely to its youthfulness.

[7] For an overview of higher education in Switzerland, see *Vision* (theme issue 12/1997).

[8] Two branches are located in Zürich (ETHZ) and Lausanne (EPFL).

[9] A simple seven-point scale with the following values was adopted: -3: suppression of the EoS; -2: significant decrease; -1: minor decrease; 0: status quo; +1: minor increase; +2: significant increase; 3: creation of EoS.

EoS [10] (and, by implication, as depicted by the first table, the extent of their competency). Finally, we infer from the proceeding steps how the influence of different groups of stakeholders has changed with respect to different acts of governance as a result of the latest round of reforms. On the basis of information retrieved from legal texts, values are entered into the matrix in two versions: one reflecting the positions of stakeholders *before* and *after* the latest round of reform at each institution. This lends itself to two types of convenient graphical representations, allowing for inter- and intra-institutional comparisons. The horizontal axis represents the group of stakeholders' *current* level of influence (as reflected in their representation in various EoS), while the vertical axis represents their *previous* level of influence. The values in the *ex ante* and *ex post* matrices can be combined to define points in the graph space. An in-depth analysis of these legal texts would have required an accordingly *legal* analysis. This, however, is beyond the scope of this study, and our investigation does not claim legal expertise. Rather, our goal is to identify general patterns (if any) in the evolution of university governance by focusing on the influence of given groups of stakeholders on specific *acts of governance*.

3.3 Questionnaire survey

Looking at legal texts offers only a "theoretical" picture of change in university governance in Switzerland, and provides circumstantial evidence about the actual or perceived presence of responsiveness and responsibility in it. In order to get closer to these core issues of the study, it was decided that a questionnaire would be sent out to (i) university rectors, deputy rectors, presidents, and vice-presidents, including those who had held this office over recent years; (ii) all Faculty deans; (iii) all heads of intra-university research institutes; (iv) a 40% sample of all the (approximately) 2,500 tenured university professors, generating an *ex ante* sample of some 1,000 persons.

The type of information being sought, however, needed to be quite different from what was investigated in the case of legal texts. The main reason for this was that the individuals surveyed might not have been well acquainted with the formal changes that had affected their institution as a result of reform. There was a major risk that their evaluation of the institutions' capacity to demonstrate responsiveness and responsibility would be obfuscated by confusion about what actually had, or had not changed. In addition, it was not always clear whether respondents would be sufficiently well-informed to tease apart *formal* change from *actual* practice, and asking them to evaluate changes in responsiveness and responsibility at both levels separately would have resulted in a highly complex and rather unwieldy survey instrument.

As a consequence, we chose to short-circuit these problems by asking respondents to evaluate their institution's capacity to be responsive, responsible and accountable under the current (post-reform) arrangement.

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[10] The degree of influence of a group of stakeholders is assigned as follows: 0: none; 0.5: weak; 1: moderate; 1.5: medium; 2: significant; 2.5: dominant (but not exclusive); 3: exclusive.

Another important aspect of the survey is that it explicitly focuses on *actual practice*, not on the way things are supposed to happen according to formal rules. The real interest of the information supplied by professors lies in what it reveals about actual practices, and how these practices are viewed.

As regards the topics to be addressed in the questionnaire, they need to focus on decisions where responsiveness, responsibility and accountability can, in principle, be exercised. This requires structuring the questionnaire in terms of *acts of governance*. Owing to the vast number and heterogeneity of such acts of governance, it would have been impossible to aim at exhaustiveness. As a consequence, three broad groups of acts were identified, and broken down into more specific questions, which do not superimpose perfectly with the acts of governance examined through legal texts. These three groups are the following: (A) the appointment to tenured positions, spanning the entire process from the definition of a job profile to the final selection of a candidate; (B) the creation, modification or retrenchment of courses, programs, syllabi and research and teaching units; (C) the allocation of funds in the yearly university budget.

The questionnaire is a "difficult" one as questionnaires go, because it refers to the three principles investigated, namely responsiveness, responsibility, and accountability, and is couched in terms of the manifestations of these principles in specific acts of governance. These three principles, which are fairly common currency in specialist's research, are not necessarily familiar to all university professors. In other words, there is a certain degree of risk involved in issuing questionnaires structured in terms of these concepts. Nevertheless we were interested in the respondent's evaluations of whether existing practices are capable of ensuring that these principles are actually respected in university governance. For this reason we decided in favor of an uncompromising questionnaire, trusting the ability of the best minds in the country to acquaint themselves with these notions, if only because they could be expected to relate sō directly to their professional practice. We endeavored to minimize the risks of misunderstanding by explaining, in an accompanying letter as well as on the cover page of the questionnaire, the meanings of responsiveness, responsibility and accountability, as well as their relevance to the problem of university governance.

4. Formal changes in the structures and procedures of governance in Swiss universities

4.1 Evolution of decision-making power

In this section, we shall focus on diagrams that emphasize our interpretation in terms of changes in the relative power of different groups of stakeholders with respect to the three acts of governance. These are: "appointment to tenured professorships", "choice

of rector" and "adoption of yearly budget"[11]. Although the acts of governance considered here represent only a fraction of the myriad decisions made in university governance, they do cover some of the most important ones.

With respect to these acts of governance, the current balance of power in university governance, at least in formal regulations laid out in legal texts, indicates that the Swiss academic system is one in which power is shared between tenured professors and the state, while civil society has a limited voice, and students, practically none at all. It is of course a difficult thing to venture an overall evaluation of the shifts in the balance of power resulting from the recent wave of reforms. However, at the risk of oversimplifying what obviously is a very intricate set of patterns, the following statements can be made:

- The **state** remains a strong actor with respect to the adoption of the yearly budget; its role tends to increase with respect to the choice of university rectors, and to decrease with respect to the appointment of tenured professors.
- The role of **civil society** remains, by and large, a limited one, with no discernible trend as regards the appointment of tenured professors, and modest increases with respect to the choice of university rectors and the adoption of the yearly budget.
- Tenured university **professors** have a modest role in budget matters, but a strong influence on the choice of rectors and on the appointment of their peers; their influence regarding the budget remains constant, while it tends to decrease with respect to the choice of rectors, and to increase as regards the appointment to tenured positions.
- The role of **students** is by and large a negligible one, particularly with respect to budget matters and the appointment of tenured professors; no significant change can be detected, although new regulations contain an inkling of increasing influence with respect to the choice of university rectors.

Moving on to an even higher level of generalization, we could sum up by saying that the groups of stakeholders with significant power (the state and tenured professors) have kept it, while the groups of stakeholders with little power (civil society) or no power (students) fare no better than before, although a marginal change benefiting civil society may be detected. In view of the above results, one may be tempted to conclude that the achievements of the latest round of reforms (with possible exceptions such as Basel) are rather meager, which opens the question of the actual political intentions underpinning those reforms, as well as the extent to which the university system is actually susceptible to change. Before drawing such inferences, however, let us recall that the above only pertains to "formal" structures and procedures, and that "actual practice" may depart from them to a significant extent. This point will be taken up, using survey results, in the following section. Before doing so, however, it is useful to focus on the question of the formal decision-making power of top-level university authorities, that is, the rectors themselves.

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[11] A more extensive discussion of the concepts used in the study and questionnaire, as well as a larger selection of results, are available in Grin, F., Harayama, Y. and Weber, L., 2000.

4.2 The evolution in the role of university rectors

The rector, as an individual actor, may have more or less personal importance; in several universities, what really matters is the "rectorate", that is, a team of top-level decision-makers comprising a rector and colleagues variously designated as vice-rectors or pro-rectors. In what follows, the term "rector" will be used to denote either set-up, it being understood that it represents the highest hierarchical unit within the university.

In order to get an overall view of the evolution of the rectors' role according to formal texts, we have examined the nature of the change defining their position in the structure, as well as attempted to identify the most notable changes affecting the extent of their competence; finally, we have graded the importance of this change on a five-point scale[12] (theoretically). As before, we warn the reader that this grading is based on our overall assessment of the evolution of their role, and that it is not intended as an exact measure, but as a highly compact summary of modifications presented in sometimes arcane legal texts.

Overall, the pattern is one of minor gains in formal power in the university structures, although the precise extent of these gains is difficult to assess on the basis of legal texts. What power gains are made by rectors is largely due to an overall tendency towards increased university autonomy, reflecting a partial departure from the traditional state-run model, and these gains do not necessarily remain in the hands of rectoral teams, since they in part trickle down within the university structure.

Given the focal role of rectors in university structures, it is hardly surprising that this role should be modified by changes in legislation. In other words, the striking fact is not so much that changes in their role have occurred in two out of three universities; rather, it is the modesty of these changes that could lead us once again to question the actual political intentions underlying recent reforms. The overview of competence changes with respect to three acts of governance presented in the preceding section has shown that the strong stakeholders in the university system remain, apart from the state itself, tenured professors. By contrast, other stakeholders only made marginal gains. Hence, it is likely that the competence of which the state divested itself, and which is not transferred to or retained by the rectorate, eventually finds its way to the level of professors or, in some universities, to a small group of professional managers with no academic involvement. Generally, the balance of power, as reflected in legal texts, did not change markedly, and autonomy gains were apparently not monopolized by rectors.

[12] The five-point scale is defined as follows: "-2": major influence loss; "-1": minor influence loss; "0": no change; "+1": minor influence gain; "+2": major influence gain.

5. Results from the questionnaire survey

5.1 General sample profile

Given the difficulty of the questionnaire, we regard the response rate in excess of 25% as acceptable, yielding a final sample of N=263. Nevertheless, there are only a limited number of cases in which elaborate statistical treatment would have been possible within reasonable intervals of confidence. For this reason, only simple statistics are presented.

We have introduced from the start one important distinction among respondents, by breaking them up into three groups:

- Group A: made up of professors who currently hold or have held a position at the rectoral level (usually, as rector, vice-rector or president);
- Group B: made up of professors who hold or have held a position at an intermediate level in the university hierarchy (e.g., as Faculty dean or Department chairperson);
- Group C: made up of all the rest (namely, professors who have never held either type of office).

Group B is the largest, with 164 respondents[13]; this must not be interpreted as the sign of a quirk in hierarchical structures, which actually are duly pyramidal, but as the normal consequence of rotating department chairmanships; at some point or other in his or her career, a professor will almost unavoidably serve as department chairperson. By contrast, current or past experience at the rectoral level is much less frequent.

The distribution of respondents is commensurate with the respective size of universities, allowing us to view the sample as an adequate reflection of the target population. The majority of respondents (55.9%) had been employed at the same institution for 15 years or more; 33.1% between 5 and 15 years; and 9.5% for less than five years. This apparent age bias reflects the fact that over recent years, the relatively low numbers of professors retiring has restricted the number of new hirings. In keeping with the above, 54% of the sample is aged 55 or more; 43% are aged between 40 and 55; 1% are under 40; this distribution also reflects the issue of the conditions of access to tenured positions - which for the past 15 years have rarely been awarded to applicants who had not reached their mid-forties. Over 91% of respondents were male; this probably still falls slightly short of the actual over-representation of men holding a tenured professorship, since according to late 1998 figures, 175 professors out of a total of 2,585 (6.8%) were women[14]. Generally, despite the fact that mailed self-administered questionnaires allow practically no control over the representativeness of the final sample, the resulting structure is an acceptable

[13] Both groups A and C contain less than 100 observations (46 and 53 respectively). When interpreting the breakdown of these sub-samples with respect to one question or another, we have used percentage terms in order to avoid cumbersome expressions such as "12 respondents out of 53 say..." It is clear, however, that this is a liberty taken for stylistic purposes only.

[14] Figures supplied by the Federal statistical office.

image of Swiss university professors. Let us now move on to their views on university governance[15].

5.2 Appointments to tenured professorships

The first set of questions focused on the procedure for appointments to tenured professor positions; respondents were asked to evaluate the *actual* (as opposed to *formal*) degree of influence of fifteen "actors". Not all of them are of equal relevance, and we only report results for eight of them, namely students, professors in the department in which the position is to be filled, the department chairperson, professors in the faculty to which the department is attached, the faculty dean, an internal committee (irrespective of its actual composition), the rector (or president), and political authorities[16].

Seventy percent of all respondents concurred that students exert a low influence or no influence at all on the decision-making process. Interestingly, it is respondents from group B, those who are likely to be most constantly involved over the various stages of an appointment procedure, who are the most outspoken in this respect. Only a quarter of respondents (in which group B is under-represented, and group A slightly over-represented) assess students' influence as "average". It is also interesting to note that the influence of the untenured research and teaching staff is barely higher (rated by most as "low to average" instead of "nil to low").

Summing up the ratings for the top two levels of influence, we find that the real wielders of power are department professors (that is, an appointee's future colleagues), of whom over 70% of respondents said that they exerted a determinant or high influence; they are closely followed by the professors of the faculty concerned (68,8%); by contrast, a department chairperson or faculty dean only rated 42% and 34% respectively. Appointment committees fall somewhere in between: those defined as internal get a cumulated rating of 55% and committees bringing together persons from within and outside the university 48%. Rectors have much less say (only 29%). This is still a bit more than political authorities.

The picture that emerges is one in which professors are firmly in control of choosing their peers. This, of course, raises the question of whether this allocation of roles can be seen as appropriate, in particular with respect to the three principles of governance placed at the center of this study.

As regards **responsiveness**, the overall judgment is one of moderate satisfaction: only 22% of respondents view of current practices as "not at all" or only "a little" capable of ensuring responsiveness; 37% evaluate this capacity as "average", and 34% as "good" or "very good". No strong discrepancies appear among the evaluations of our three categories of respondents, although groups A and B (made up

[15] Here we present our results on two acts of governance namely "Appointment to tenured professorships" and "Allocation of budget resources".

[16] The relevant authority is the cantonal government in the case of cantonal universities, and the federal government in the case of the Federal Institutes of Technology.

of people who are or have been in decision-making positions) seem more pleased with the system than members of group C, who are slightly more critical.

The evaluation is better when it comes to guaranteeing **responsibility**. Only 17% of respondents viewed the system's performance in this respect as poor, 31% considered it average, and just over 45% thought it good or very good. There again, there are no major divergences of opinion between respondents, although members of group C are somewhat more critical.

However, not all respondents are so sanguine when it comes to assessing **accountability**. Almost 30% regarded the system as "not at all" or only "a little" capable of guaranteeing accountability; a little less than 27% considered the performance "average"; and just over 40% found it "good" or "very good". This bi-modality disappears if results are reported in terms of the five original ratings, where exactly a third of the total sample gave the system a "good" rating; however, we may interpret these figures as indicating the presence of an actual split among university professors in their views on the university's transparency. This suggests that accountability is an issue of particular relevance.

We also examined the role of different selection criteria. Publications are unanimously recognized as a selection criterion of "strong" (64.7%) or even "determinant" (28.5%) influence. Pedagogical abilities are considered important, although only 5.7% of respondents viewed them as playing a "determinant" influence, 32.7% thought this influence "strong", and 41% "average". No manifest differences of opinion among respondents from different categories emerged. Our data also indicates that stays at foreign universities are viewed quite unanimously as a selection criterion with "average" (35%) or "strong" (45%) importance. However, candidates' experiences in management (for example, of a research center, of research teams, or of some other educational institution) is considered by 29% of respondents as being a criterion of "average" importance, while over 63% recognize that such abilities play a weak or zero role in the selection of candidates!

An applicant's scientific network - that is, the density and frequency of his or her scientific connections, as may be evidenced by a record of joint research projects, the capacity to attract research funds, the occurrence of co-authorship in one's list of publications, etc. - could be expected to be a very important selection criterion. As it turns out, respondents ascribe a much lower importance to this factor. Only 34% view it as a "strong" or "determinant" criterion; the bulk view it as having "average" importance (43%). No major difference between categories of respondents can be detected.

Finally, the very delicate question of "personal support" was asked. In asking this question, we were aiming at the role of typically non-transparent procedures, which may include the unofficial phone calls made by some actors in the system (for example, more influential professors) on behalf of one particular candidate. Over a quarter of the sample confessed that such practices could play a "strong" or "determinant" role in an appointment procedure; 31% ascribed it of "average" importance; and 38% thought it had no importance.

One additional question asked whether the relative importance of selection criteria was stable (suggesting clear "rules of the game", as should in principle be the case), or whether it was liable to change from one case to the next. Over 50% of respondents admitted that such change was possible. Interestingly, a majority of group A respondents gave a negative answer, while the other two groups thought otherwise. The contrast is particularly sharp with group C respondents, among whom less than a third thought that selection criteria were stable. This result, of course, raises serious questions in terms of principles of governance in the actual practice of universities, particularly in terms of accountability.

We then asked respondents if the relative importance of these selection criteria, in actual practice, allowed the university to apply principles of responsiveness, responsibility and accountability. The answer is moderated.

Just over a third of the sample viewed selection criteria as enabling the system to respond "well" or "very well" to be **responsive**; another third thought the system merely "average" in this respect; and a little over a quarter thought the performance decidedly poor. There are no major differences between respondent categories, although group C respondents tended to be more critical, while rectors tended to be most pleased. It should be noted that it can be particularly difficult to evaluate, from *inside* the system, its responsiveness to the outside, which may in part explain the discrepancy between respective perceptions.

As was the case earlier, the system gets a better rating with respect to its capacity to be **responsible**. 45% of respondents viewed its performance as "good" or "very good", 33% as "average", and 16% as "low" or "nil". Clearly, responsibility is not, at present, perceived as the weak spot in the system; however, some divergence of opinion among categories can be observed. Among group C, only 28% were pleased with the performance, and more than a quarter found it "poor" or "nil", whereas almost 57% of rectors and presidents appeared pleased with the university's capacity to resist pressures, and a mere 2 out of 46 individuals considered this capacity to be "low".

Again, the system received its lowest ratings with respect to **accountability** (39% of respondents viewed its performance as "good" or "very good", 28% "average", and 28% "low" or "average"). However, these overall assessments reflect the opinion of group B. By contrast, 54% of rectors considered the relative importance of selection criteria, in practice, delivered accountability "well" or "very well"; among professors in group C, 40% thought the system performed "low" or "nil". Two general patterns can be noted. First, the university's capacity to deliver responsibility and, to a lesser extent, responsiveness, is certainly inadequate but not abysmal; by contrast, its ratings in terms of accountability is poor; accountability therefore emerges as a priority issue in future reforms. Second, the higher up in the university hierarchy, the more pleased respondents are; conversely, professors who do not and have not held decision-making posts in this hierarchy tend to be consistently more critical.

5.3 Allocation of budget resources

Our set of questions regarding the procedures for budget allocation within the university, being of a more technical nature, has given rise to less divergence of opinion among categories of respondents and to a higher non-response rate. We shall therefore confine ourselves to a discussion of three of these issues: the relative degree of influence of different groups of actors in budget allocation for current expenditures and small investments, referred as "allocation of budget"; the relative importance of criteria used in this allocation procedure, along with respondents' judgments on their appropriateness for ensuring responsiveness, responsibility and accountability; and their judgment on the adequacy of current arrangements regarding the overall autonomy of their institution in terms of guaranteeing that these three principles are respected.

The first set of questions reviews the respective influence of different groups of actors, this time on the definition and adoption of an operational budget that amounts to a decision regarding its allocation. An overwhelming majority of respondents (90%) concurred that students' influence is "weak" or "nil", and almost as many (83%) said this is also true of untenured research and teaching staff. In contrast to other acts of governance, this is an area in which professors have (in their professorial capacity) relatively little say (department professors' influence is considered "weak" or "nil" by 43% of respondents and faculty professors' influence by 36%). Department chairpersons' influence is also rated as "weak" or "nil" by 36% of respondents. The dean has more say; his or her influence is rated as "determinant" or "major" by 42% of respondents. However, for most of them, the real power is in the hands of the rector or president: 40% of them consider his influence to be "strong" and 25%, to be "determinant". In the view of most respondents, the state only exerts limited direct control, in the sense that the influence of authorities is rated as "strong" or "determinant" by 35% of them, whereas 39% consider the influence of the state to be "low" or "nil".

As regards the capacity to guarantee **responsiveness**, only 19% of respondents consider that this allocation of influence is satisfactory, while 33% view it as somewhat capable or not at all capable of doing so. On this count, a strong discrepancy can be observed between rectors or former rectors, who are less critical, and professors of group C (only 4 respondents out of 53 consider the system appropriate). As always, the system's capacity to guarantee **responsibility** is evaluated slightly more positively, but the overall ratings are not markedly different; ratings regarding the capacity to be **accountable** are marginally worse. On both items, however, respondents of group C are much more critical of the system's performance.

Regarding the criteria used for allocating resources, 80% of respondents considered that the budget of the previous year was a strong or determinant factor in explaining the allocation adopted for the current year, without notable differences among respondent categories. The persuasiveness of arguments put forward to justify a particular distribution, however, seems to be much less important (considered as a strong or determinant factor by less than a third of respondents). One factor deserving

this rating, for 52% of respondents, was "power balance": some players are more influential than others, and it is striking that 29 out of 46 rectors or former rectors acknowledge the role of this factor. A clear majority of group A also considered the personal negotiating skills of heads of units (faculties, departments, etc.) as factors having a strong or determinant influence, whereas only a little over a third of the two other categories of respondents thought so. This suggests that, from their pivotal position, rectors hold a fairly different view of how money is allocated - incidentally, it suggests that other members of the university community, if they wish to orient budget decisions in a direction they regard as advisable, would do well to hone their negotiating skills.

By contrast, the actual needs of different units within the university appear to represent a much less relevant factor (only about a quarter of rectors saw them as having a strong or determinant role). Long-term strategic planning carried out by the institution as a whole was also seen as a secondary determinant of expenditure patterns; however, centralized strategic planning carried out at the rectoral level was recognized as somewhat more important, though not by much. On this particular point, a sharp contrast emerges between rectors (22 out of 46, or almost half, think their role strong or determinant) and rank-and-file professors (only a quarter of see things the same way).

Budget cutbacks in lean times can be adopted according to very different criteria. About three fifths of respondents assigned a strong or determinant influence to "across-the-board" budget cutbacks disregarding actual needs; group B respondents seemed particularly critical in this respect; for almost half of the respondents, the distribution of cutbacks was strongly, or in a determinant way, the result of a passive (or adaptive) response to events with a financial incidence (the case in point being the normal retirement of professors that frees up financial resources). Finally, the distribution of cutbacks may reflect a targeted retrenchment plan, and almost half of the rectors or former rectors considered it as a strong or even determinant influence in making the decision, but barely more than a fourth of rank-and-file professors believe this - group B respondents falling somewhere in between.

Almost 40% of respondents considered the relative importance currently given to these criteria, in the actual functioning of their institution, to be somewhat or completely unable to ensure **responsiveness**; far fewer considered the arrangement to perform "well" or "very well" in this respect; again, rank-and-file professors were particularly critical. The system's capacity to demonstrate **responsibility** gets a better rating, albeit with the usual strong contrast between groups A and C. All three groups of respondents were dissatisfied with the system's capacity to be **accountable**: overall, 16% thought it performed "well" or "very well" in this respect, while more than twice as many (43%) thought it performed "poorly" or "not at all"; as in most cases, respondents from group A were least critical, while those from group C were particularly dismissive in their evaluation.

Generally, the procedures that determined (at least informally) budget allocation decisions are evaluated rather critically, with only lukewarm support from those (rectors and former rectors) who wield more influence in this respect. We found

only limited evidence that rules and procedures for budget allocation were recognized as appropriate methods for engineering change in higher education institutions. This opens up a whole range of questions pertaining to the type of innovations that could be introduced in order to move from reactive budget allocation techniques (which many respondents criticized for their short-termism and their vulnerability to power-plays) to more targeted ones, in which budget decisions, in addition to favoring appropriate allocation of resources in terms of responsiveness and responsibility, would also become an instrument of accountability.

The last set of results in this section concerns respondents' overall evaluations of the degree of institutional autonomy of the system, particularly in terms of its capacity to deliver responsiveness, responsibility and accountability. The issue of autonomy is an important one in Swiss higher education, which is currently moving away from an essentially state-controlled system to one made up of universities operating as more independent legal entities - with corresponding decisional autonomy in the management of universities. Some universities (e.g., Basel) have already gone much further in this direction.

Five criteria were used in our questionnaire to characterize a university's degree of autonomy[17]: its formal legal status; the university's leeway to set professors' salaries (and possibly to differentiate between them); the management of the university's buildings (which can belong to the state and be designated, by the latter, for use by the university, or be owned by the university); the extent to which the university budget is integrated into the state budget (normally, the corresponding cantonal budget) or completely separate from it; and the frequency of direct intervention by the government (e.g., local education ministers) in the governance of the university. Ratings were given on a five-point scale.

Generally, respondents from group A viewed the university as much more autonomous from state authorities than the rest of the professors did (over half of the former group gave their institution a rating of 4 or 5 on a five-point autonomy scale; less than a third of the two other groups did so); for 80% of respondents, universities had no leeway in wage-setting; and for about half of them, it had little autonomy (ratings of 1 or 2) regarding the management of buildings. The evaluation falls in the same range (again, without significant inter-group contrasts) when it comes to the degree of budgetary autonomy (a little over half of all respondents considered this degree low or nil and less than 20% high, and approximately the same proportion gave it a mid-range value of 3). Finally, respondents had fairly similar views on the extent of state intervention in the running of the university (about 40% considering it as rare or exceptional and under 30% as frequent). Modest differences among groups of respondents can be detected, with a larger proportion of group B (and, even more so, group A) respondents assigning it a mid-range value of 3; by contrast, group C respondents tended to have more definite views, but they were, interestingly, fairly evenly split between those who thought the state intervenes frequently or rarely. For

[17] This question has more relevance for cantonal universities since the Federal Institutes of Technology are regulated by a common federal Act.

19% of respondents, **responsiveness** was served "well" or "very well" under the existing system prevailing in their university; 31% considered it performed "poorly" or "not at all"; as often before, rectors were least critical, and rank-and-file professors most critical of the current situation. The overall evaluation is better with respect to **responsibility** (where the proportion of rectors giving this positive assessment was twice that of rank-and-file professors); nonetheless, more than 28% of all respondents thought the system performed "poorly" or "not at all". Interestingly, the answers of the three groups are remarkably similar with respect to **accountability**; one third of the respondents considered the performance "average", one third thought the arrangement worked "well" or "very well", and one third, "poorly" or "not at all".

6. A comparative perspective

In this section, we shall present a comparative overview of the priorities of reform in university governance from the perspectives of Switzerland and Japan, on the basis of the report produced by Japan under the SNERP and of discussions that have taken place at a seminar organized by Hiroshima University and hosted by University of Tsukuba on February 24-25 2000.

The main issues raised in the Japanese study are the following. First, there is major outside pressure, whether from the government or from business, for universities to reform, and in particular to demonstrate more social contributions and international openness, to develop resource allocation procedures (both among and within universities) in which market-like mechanisms are put to use and to reinforce the cooperation between universities and industry. Concretely, in 1998 the University Council proposed several measures such as the reinforcement of the president's leadership, moving from a bottom-up style to a top-down style in university management, and the introduction of an external evaluation system. Also the transformation of national universities into "independent administrative corporations" (dokuritsu gyosei hojin) is under discussion.

The comparison between two countries on the evolution of governance structures and procedures can be summarized as follows:

The *role of government* is typically high in Japan, which has a strong Ministry of Education, and somewhat lower in Switzerland, where, as we have seen, education is decentralized, but local (cantonal) governments play an important role. The influence of government is declining in Japan, particularly as regards regulation, planning, coordination and general funding, but it is increasing with respect to targeted funding; the government also exerts a rising influence on universities through assessment exercises that reinforce competition among institutions. This pattern is quite different from the Swiss, where the role of the authorities has declined somewhat in terms of funding (with the relative share of other sources of funding being expected to increase). However, their role increased in the sense that authorities are taking steps to alter the playing field in order to induce universities to be more competitive and to plan their development in a coordinated, mutually complementary perspective.

One general feature emerging from the comparison with respect to the *role of different bodies in university institutions* is that Japan and, to some extent Switzerland, are clearly reforming, in the sense that hitherto "strong" bodies can see their influence eroding, whereas bodies that had comparatively limited influence are seeing their role increase. The tendency in both countries is to move toward strong presidential leadership, which could be considered a preliminary step for the improvement of university's responsiveness.

Regarding *budgetary matters*, two features hold in both countries[18]: previous budgets have largely determined current ones (there is a certain stickiness of expenditure which prevents swift reallocation of resources); accordingly, strategic development considerations only exert a limited influence on budget allocation. However, a significant part of the financial resources of Swiss universities continues to be in the form of line-item budgets (although this practice is undergoing rapid change); block grants and targeted grants tend to represent a more important part of funding for Japanese universities.

In general, as we have seen, many of the challenges that higher education has to deal with are the same. Universities are expected to cater to an increasing clientele with diverse needs and backgrounds, to offer a broader range of educational products, to keep up with technological development in both teaching and research, to reexamine their role in society, to be more open to outside scrutiny, to face competition from other providers of teaching (not to mention analytical and consulting expertise), to maintain their independence while at the same time acquiring more funding from non-government sources, and generally to do "more with less".

Adaptation to change also presents some common features across these two countries. These are:

- A significantly stronger role for university presidents, amounting to a centralization of power *within* the universities;
- A decline in the role of some "historical" bodies within universities, such as "Senates" or other bodies bringing together all the professors of a university;
- A declining influence of the authorities in budget matters, but stepped up government intervention regarding the framework conditions in order to modify the general context in which universities operate; this implies using incentive mechanisms;
- A more frequent use of evaluations, whether internal or external, and whether mandated by the authorities or undertaken by the free will of the institution;
- A general effort to increase the share of private funding to support university operations;
- A shift in the explicit or tacit rules about the respective positioning of universities, which results in sharper competition among them and, more generally, an increasing reliance on market-like signals to orient decisions.

[18] Regarding budgetary matters, only national universities were considered for the Japanese case.

7. Conclusions

In the light of the complexity of university governance as an object of study, and of the extreme variability of actual approaches to the practice of university governance - both among and within countries - there is little doubt that a sustained research effort in this area is a necessity. Although a growing amount of literature is available, the difficulties of university governance are such that stakeholders may still be insufficiently equipped to face current challenges.

The general public, as well as its elected representatives in public office, does not appear to have access to adequate information on the issues confronting universities. It makes it all the more difficult for society at large to express its preferences and to clearly voice its expectations *vis-à-vis* universities; this fact may, to some extent, contribute to explaining the increase in the overall pressure for introducing and institutionalizing assessment procedures. Of course, one might argue that market mechanisms provide a conduit through which preferences can manifest themselves. However, even if this may apply to some acts of governance, such as the range of courses offered as a response to apparent demand, it is clearly insufficient with respect to the internal organization of universities, particularly the need to be responsible and accountable. Responsibility may be described as the capacity to be responsive twenty years from now; mere adaptation to short-term demand cannot guarantee this capacity. As for accountability, it is predicated on the assumption that university governance plays by certain rules. Available evidence suggests that these rules can be muddled or confusing, leaving ample room for power plays in which well-placed individual actors can exert undue influence.

Within the university itself, the actors in charge of governing the institution (particularly rectors and presidents) do have access to most of the information required, even though the information that eventually reaches them may have been inappropriately filtered at various stages, thereby hampering their capacity to precisely assess the stronger and weaker points of their respective institutions. However, the demands placed upon them are such that it is far from certain that they have the necessary support (particularly resources for strategic analysis) to deal with them. In the context of increasing competition among universities for access to private and public funding, strategic positioning in promising scientific niches, and strategic decision-making for institutions, constitutes, in itself, a challenge, which is increasingly set to exceed in complexity those confronting the CEOs of major international corporations.

In order to meet the informational, analytical and strategic needs of very different types of shareholders, research is an incontrovertible necessity. We submit, however, that some directions of research may prove more effective in coming to grips with the complexity of the questions involved. Precisely because of the extreme case-dependency, it is doubtful that any particular set of measures will have universal applicability. For example, arguing across the board for "more market" in university governance may suggest ways to solve *some* problems in *some* contexts. This may, in particular, enhance universities' responsiveness. However, "more market" is a recipe

likely to fail in terms of responsibility, and there is insufficient evidence so far that it would greatly enhance universities' capacity to "play by accepted rules" (and to do so *verifiably*). Furthermore, what applies in a small, decentralized and multilingual country such as Switzerland may not be appropriate in a large and extremely homogeneous country (by international standards) such as Japan, and vice-versa.

It follows that the focus of our search for useful guidelines for university governance may have to be shifted. Instead of looking for the right *measures*, it may be wiser to look for appropriate *principles*. This would confirm the validity of an approach to university governance prioritizing principles such as "responsiveness", "responsibility" and "accountability". Of course, these three principles are, as such, open to debate, and they certainly lend themselves to further elaboration. Our goal in this study, however, is only to contribute to opening some avenues in this direction.

Finally, it is important for the debate on the future of higher education, also with respect to responsiveness, responsibility and accountability, to be as open as possible. As noted above, it is exceedingly difficult for social actors, particularly those who are outside formal academic structures, to obtain the necessary information, to weigh the issues, and to form and express preferences concerning university governance. To this end, the development of permanent public fora on higher education (for example in the form of regularly convened *estates general*) could constitute a useful element for the development of an *open culture of university governance* in the 21st century.

This, of course, raises more general questions of democratic governance far exceeding issues of higher education. Nevertheless, if only because higher education is such a centrally important player in modern societies, and is so deeply intertwined with their evolution, such questions cannot be ignored.

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University Reforms and Academic Governance in Singapore

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Introduction

At the start of a new millennium the impact of globalisation and the convergence of information and communication technologies is transforming economic and social life and creating new and radical possibilities. These processes have resulted in both the liberalisation and interlinking of national economies, led to the rising power of transnational companies eg General Motors, Shell, Microsoft, and organizations eg the World Trade Organization, a push led by the USA for more liberal-democratic forms of governance and a commodification and dominance of US-style cultural products (Ohmae, K. 1995, 1999, Robertson, R. 1992, Hirst, P. and Thompson, G. 1999). This has led some scholars to proclaim the demise of the nation state due to a weakening of the autonomy and power of the state due to the erosion of the regulatory power of national governments and legislatures, while others have pointed to the need to examine closely how states are responding to the globalisation challenge and the role of different types of national elites, history and state capacity (Gopinathan, 2001, Sassen, 1999, Low, 1998).

Notwithstanding the different perspectives, it is clear that global trends in economic, social and cultural spheres will impact on the ways in which states manage their internal and external affairs. Where state formation has been intense as in Singapore, Korea, Japan, the state seeks to remain strong and in strategic control. Their desire to ride the waves of globalisation and to take advantage of it is often driven by a strong survivalist imperative; thus we should play close attention to national histories if we wish to understand why and how states differ in their responses to globalisation.

Two aspects of national responses concern us here, one, the ascendancy of a governance philosophy based on managerialism and two, its consequences for education. Essentially, globalisation requires states to reform their public management procedures in order to improve effectiveness, efficiency, cost-reduction and higher productivity and responsiveness to customer demand and preference. Large state bureaucracies are seen as overmanned, often corrupt and inefficient and private sector business principles and procedures, and a more active involvement of the private sector in the delivery of services, is seen as key to higher productivity. The state becomes not the key provider of public services but a market regulator focussed on results and outcomes (Osborne and Gaebler, 1992).

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These trends in the political and economic spheres have their impact on education, especially in countries where the state is the main provider of educational services. This is so because the state is seen to be responsible for providing access to education which in turn is expected to lead to enhanced career opportunities and thus social mobility and the ability to generate wealth. In a globalising world with enhanced capital and talent mobility the state is forced to benchmark its key institutions against leading global ones; institutional branding contributes to the marketability of qualifications. Where the state's legitimacy, and its capacity to survive and prosper in a globalised world is dependent upon the quality of human resources produced through education, the state must ensure that the nation's tertiary institutions and research centres can contribute to a continual energising of the economy. Finally, in a situation where there is increased demand for post-secondary education, and alternative but viable routes to certification the state will need to ensure that the institutions are well governed and cost-effective (Green 1999, Mok, 2001, Pratt and Poole, 1999). It is these pressures that explain the phenomenon of educational reform, which began in the USA and the UK in the eighties and which has accelerated in the nineties.

The University Sector

From its infancy the Singapore state recognised the value of education to national prosperity and social cohesion and thus the need to have authority over it. Indeed in the fifties and sixties the state fought hard to assert control over educational governance and remove the power of special interest groups; in both the school and the university sector there was a struggle over control. Thus, in the early phase of Singapore's development the struggle was over imposing central authority over a fragmented system and moulding it to serve the state's agenda (Gopinathan, 1991). Where the university sector was concerned the state had to battle to reform a university influenced by colonial mores and traditional concerns over academic freedom and tenure (Gopinathan, 1989). Indeed, both in 1968 and in 1980 senior cabinet ministers were appointed vice- chancellors of the university. This history and the lack of a private sector in education meant that the issues of governance and funding play out differently from say, Japan or Switzerland.

A second pertinent difference is that of massification. In the Singapore context the state invested sparingly in higher education, preferring instead to build up a strong, well resourced school and polytechnic system. Singapore's second university was established only in 1991, followed by a third in 2000 with planning underway for a fourth. By the 1990s Singapore had established a strong track record for economic

growth, and qualitative improvements in secondary education produced a larger pool of potential university students. Growth in higher education is driven almost exclusively by economic growth considerations and even today less than 25% of each cohort find places in Singapore's three universities; in 1998, 9,159 full time students were admitted to the universities, and the total enrolment was 31,991 (Low, 1998). Notwithstanding the above, given the advent of a knowledge-based economy and the increased value of advanced knowledge and skills there will be pressure for more and more educational provision, thus putting pressure on the national budget. Indeed, enrolment in universities rose rapidly, from 5 percent in 1980 to 21 percent in 1999.

From the point of view of the balance between teaching and research it is fair to say that Singapore's universities are largely teaching institutions geared to providing trained manpower needed for a rapidly industrialising society; it is only as Singapore's capacities grow and research and innovation are needed to fuel economic growth that greater efforts have been expended, especially in the last decade, on promoting post-graduate education and research. Here again it was the state that identified the new priorities and pushed the universities down that path. It has been noted that administration and management are prime objects of academic reform (Arimoto, 2001). While this does seem to be true of the most recent reforms, notably the 2000 *Review of University Governance and Funding*, different management structures experimented upon earlier did not fundamentally influence how the university was managed. When Nanyang Technological University was established in 1991 it deliberately adopted an US-style management structure while the National University of Singapore retained British-style designations. Thus NTU had a president and deputy presidents, schools instead of faculties and divisions instead of departments. Heads of Schools were, however, known as deans. It has been observed that heads of departments had considerable academic power in NUS while at NTU the deans seemed dominant. An older tradition of electing heads and deans gave way, without too much of a struggle, to appointments by university leaders. When the Singapore Management University was established it too represented innovation in that it was described to be a publically funded but privately managed university. The university leader's position in Singapore, be they vice-chancellor or president, is a powerful one; they know they operate with the full backing of the government, always mindful that they run state institutions. Though there may well have been differences in the way the universities operate, in terms of their accountability and their relations to state authority, these differences mattered for little.

Given the expenses involved in operating a university, it is not surprising that finance issues impact greatly on what roles leaders see for themselves and how governance and accountability issues are dealt with. In the US context, the university president is as much fund raiser as academic leader. Singapore's university leaders are in a

more fortunate position as the state has been generous in funding the universities. An important funding innovation was the setting up of the University Endowment Fund in 1991 by the government. The Fund was established with a grant of S$500 million with S$250 million going to each university. In addition the government pledged to another S$250 million to match funds raised by the universities. Since the establishment of the Fund active and successful fund raising by the universities have led to the establishment of well endowed professional chairs, and renewed a tradition started earlier with the establishment of Nanyang University in the mid-fifties of public financial support for education in the universities.

Reforming University Governance and Administration

Several factors that emerged in the nineties pointed to the need for a more radical reform of university governance. On the economic front Singapore had to move more rapidly up the value chain and to better exploit the emerging opportunities in the information technology and biotechnology areas. Technology transfer needed to be replaced by home grown innovation and the universities needed to provide breakthroughs in the research sphere. Singapore's universities operating in a stable, well resourced environment were in danger of becoming complacent at a time when there was a dire need to develop and attract top talent to build a world class economy. Even a cursory review would indicate that little attention had been given to making entry requirements, curriculum, staff recruitment etc. more relevant to the times. The government was reviewing how key public sector institutions ought to be managed and invigorated to meet new challenges and the university sector which attracted a large amount of public funds was an obvious target (Lim, 1996). Also, while many Singapore institutions were seen as being world class, the state's universities were not regarded as such.

In June 2000 the government accepted the recommendations of a committee led by the permanent secretary of the ministry of education. As the report put it " the purpose of the review of university governance and funding is to ensure that systems and structures affecting talent management, organizational processes and resource allocation within the universities are properly aligned to help rather than hinder the institutions in the achievement of their mission and objectives".

The review of governance was itself preceded by earlier initiatives. In 1996 Prime Minister Goh Chok Tong had challenged the universities, together with selected foreign institutions, to turn Singapore into a 'Boston of the East' i.e. to become a major education hub. The universities then developed strategic partnerships, for example, the Singapore - MIT Alliance and undertook major curriculum reviews eg.

major changes to the engineering curriculum (Chen, 2000), the core curriculum programme etc; essentially, the changes were intended to broaden the curriculum and provide for greater choice and customisation. Other changes included a stepping up of postgraduate programmes and the acceptance of a new university admission system. This system, to be implemented in 2003, will include, in addition to the 'A' level examination, a reasoning test, project work and co-curricular activities.

Key Recommendations

The key recommendations of the Steering Committee are outlined below.

"a. Overall: That the universities be given further operational autonomy, over and above what they currently enjoy, so that they can respond more quickly to changes in the environment, in return for greater accountability to ensure that public funds are properly directed towards the achievement of outcomes and used in an efficient and effective way;

b. Governance:

   i. That MOE continues to set key policy parameters while giving the universities more scope for greater operational autonomy, within a systemic accountability framework which is more comprehensive than the existing one,

   ii. That MOE establishes a systematic accountability framework focussing on the universities' achievement of outcomes and processes leading to the outcomes, including to the introduction of an external review once every 3 years to validate the universities' internal quality review, with inputs feeding into decisions on funding,

   iii. That the role of the universities' Councils should complement the responsibilities of the CEOs in the strategic development of the institutions;

c. Funding:

   i. That the universities diversify their sources of funding by further developing their links with industry, alumni and the wider community,

ii. That the universities be given more flexibility in financial management, mainly through the use of block grants and the use of a 3-year recurrent budget planning cycle. More competition should be introduced in the allocation of research funding;

iii. That the universities put in place appropriate internal resource allocation systems to support and motivate Faculties, Departments and staff members in prioritising activities and achieving outcomes;

d. Staff management:

i. That a new remuneration system consisting of a basic component and other variable components reflecting differences in performance, responsibilities and market relativities be introduced,

ii. That salary scales for basic pay be replaced by salary ranges with no automatic annual increments,

iii. That the basic pay of Assistant Professors be increased by up to 20%, depending on the merit of each individual,

iv. That rigorous appraisal systems be instituted to set out expectations for staff members, help the universities and the staff members assess performance, and provide the necessary information to make decisions on rewards and recognition, from annual merit increments to promotions and the granting of tenure,

v. That the universities devote more attention to staff development, including leadership development and managerial training,

vi. That efficient HR work processes be put in place to support the new staff management system."

(Review of University Governance and Funding)

Discussion

There is now an extensive literature on how the public sector in many countries is being reformed by the infusion of private sector practices and terms like 'corporate

managerialism' have been coined to explain governance and funding changes (Koh, 1997). In essence these changes are intended to promote competition, increase efficiency and to give customers greater choice, among others. Others (Teichler, 1999) have pointed to initiatives, especially in Europe which are promoting a new internationalism via cross-border movement of students as ways of responding positively to change in the education sector.

It is clear from the proposed changes to university governance and funding in Singapore that the state recognises the need to reposition the universities to better meet the challenges of globalisation. The universities are vital state assets which have been for the last three decades geared to meet economic growth imperatives and to a lesser extent social demand for higher qualifications. Reforms have been undertaken with regard to increasing access - we noted earlier that a fourth university is planned and more opportunities are being provided, especially to polytechnic graduates, to earn a degree. Changes have also been proposed to admission criteria to signal, that in addition to academic competence, such traits as creativity, passion, special talents, would be given due consideration. There has been a deluge of new curriculum initiatives, seeking to add breath to undergraduate education and to offer more hybrid programmes and to cater to the academically talented. It is clear that planners have taken to heart criticisms of the industrial-era learning model which, while it certainly required effort from undergraduates, did not sufficiently challenge them, shake up old assumptions, and put them on the path to independent learning. Faculty will now be under greater pressure to perform and be rewarded better for greater achievement; in time greater differentiation in salaries, rewards and benefits will be inevitable. The establishment of the Universities Endowment Fund a decade ago signalled a new relationship with regard to financing and lessened the universities dependence upon the state. And, finally, the governance reforms will change university institutional structures and further alter the state-university relationship.

Singapore's efforts to become an education hub by attracting up to ten world class universities to Singapore to provide postgraduate education and joint research is an innovation worthy of closer study. Institutions such as MIT, Wharton, Chicago Business School, INSEAD, Johns Hopkins etc. are offering campus based programmes in Singapore. Coupled with varying types of arrangements i.e. the NTU-Carnegie Mellon joint programme in MSc in Financial Engineering, and the NTU-Duke University collaboration at the Singapore Biomedical Centre, the entry of foreign institutions into the state dominated sector of higher education is likely to pose many challenges. The student character in these institutions will be more diverse, curriculum and assessment norms different from those prevailing in Singapore institutions and governance and funding practices also diverse. Thus these

institutions and arrangements will increase competition and choice and provide alternative governance structures.

Equally interesting in governance and autonomy terms is the establishment of the Singapore Management University. As the government described it, " it is a private university with strong government support". It admitted its first batch of some 300 students in a business degree in 2000 and plans to start a School of Accountancy in July 2001. It is expected to launch courses in economics and social sciences later; projected enrolment is 6,000 undergraduates and 3,000 postgraduate students (Tan, 2001). The first president of SMU is J. Bellace, a professor with the Wharton School with which SMU has close institutional linkages.

It is clear that the government in establishing SMU was responding both to demand for places in business courses as well as promoting innovative models of university governance. It is however not clear why the term 'private' should be applied since it is fully funded and accountable to government. Such autonomy that it has will now be available to other two universities under the proposed governance reforms. This is perhaps an example of the government borrowing the discourse of marketisation but effecting no substantial change in the ways things are ordered.

It is not clear that these changes have come about due to increased massification pressures; as we noted earlier the university sector enrols about 25% of the cohort, though there is pressure on the state to provide for more places. It also does not appear that the changes in curriculum that are being implemented are due primarily to a widening of ability differences in the student population, a feature noted to exist with increased massification. Given the state's capacity to fund and the concern that standards and rigour be maintained there are no suggestions in Singapore that the private sector be allowed a larger role in providing higher education, even in the face of the fact that close to 15,000 students are studying abroad. What may be happening in Singapore's higher education system is the state using a number of reform strategies similar to those used in countries which are in a post massification stage, and facing say, resource constraints and influenced by strong advocates of market dominance. Thus while the rhetoric is familiar the context and rationales are different.

The changes being proposed by the governance reforms can best be understood as an example of 'centralised decentralisation' having features of both decentralisation at the operational level with strategic control over the sector and individual universities firmly in the hands of the governments. The flexibility to link salaries and other rewards to productivity will at one level give the university management more control over academic staff while at the same time prevent micro management by the

government. The terrain of university life and work will more than ever resemble a marketplace with rewards for effort and effort for reward. At the same time given the need to meet promised outcomes and standards university management will need to emplace mechanisms for planning, monitoring and auditing of processes and outcomes. Given the emphasis on accountability, responsibility cannot be diffused throughout a large system. It is in this sense that we see centralisation and a shift of power from departments and individual staff to senior management.

No essay on universities can be complete if it did not consider how the proposed changes might impact on the university's broad mission and its unique role in society. Though some burden has been placed on the universities to become more entrepreneural and both universities have established 'spin off' companies to exploit their intellectual capital, it is hardly the case that 'academic capitalism' has overpowered Singapore's universities. The discourse of clients, competitive advantage, marketing of knowledge via educational products and consultancy, performance indicators, audits etc has nevertheless forced academics and universities to consider anew their core functions and responsibilities. We should not be surprised that there will be some disquiet over the 'instrumental construction' of the role of universities and askance that universities ought to play the game of markets. While we can hardly hope to return to the era of Newman's universities the role of the university as the conscience of the nation, as an instrument to enable truth to prevail in the face of power and political expediency should not be easily surrendered. It is to be hoped that governance changes will be empowering rather than disempowering.

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Reform of British Universities and Academic Governance, 1990-2000

Keith J. Morgan

The agenda for university reform is determined politically. Since the nineteenth century, government has attached a significance to universities; and it is from government that the major initiatives in higher education have arisen. The environment for government action varies. Occasionally it has reflected social aspiration but more usually it has been the utilitarian demands of the labour force and economic advancement. The British government provided a statement of its views on the roles of universities in 1996 in the terms of reference for an enquiry into the future of higher education [Dearing]. Recognising that higher education embraces teaching, learning, scholarship, and research, the following principles were stated.

1. There should be maximum participation in initial higher education by young and mature students and in lifetime learning by adults, having regard to the needs of individuals, the nation, and future labour markets.
2. Students should be able to choose between a diverse range of courses, institutions, modes, and location of study.
3. Standards of degrees should be maintained and assured.
4. The effectiveness of teaching and learning should be enhanced.
5. Learning should be responsive to employment needs and include the development of general skills.
6. Higher education's contribution to basic, strategic, and applied research should be maintained and enhanced.
7. Arrangements for student support should be fair and transparent.
8. Higher education should be able to recruit, retain, and motivate staff of the highest calibre.
9. Value for money and cost-effectiveness should be obtained in the use of resources.

The role for British universities identified in these criteria can be seen to indicate both expectations for the future and fulfilment of the government's earlier legislation. The Education Reform Act (1988) and the Further and Higher Education Act (1992) had together established a legal framework for major reform of the system. In effect they had institutionalised a

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transformation of the traditional elite universities into a system structured for massification.

This transformation occurred largely in a period of 15 years, starting in 1985 (with foreknowledge of the 1988 Act). A variety of criteria demonstrate the scale and extent of the change: size, access, courses, cost, management, governance. So, the number of students rose from 900,000 in 1985 to 1,800,000 in 2001; and participation rates rose from 14% to 35% over the same period; but, as a percentage of gdp, costs have been constrained to show no increase [CVCP]. Courses have been diversified to cover new areas, achieve new excellence, adopt wider structures, and rescheduled to meet the needs of non-traditional students. The quality of academic processes has been subjected to extensive scrutiny in terms of audit, assessment and accountability. The institutional context exhibits major innovations, both internally with rewritten university constitutions, and externally with new contractual relationships between the universities, the funding councils, and the government. The impact of each of these changes has contributed to a significant overall reform of the universities.

Constitutions

The universities in Britain span a wide range of sizes, structure, origin and organisation [HEFCE (1)]. They do though share a number of fundamental characteristics. They are all:

- legally established, independent, corporate bodies;
- empowered to perform academic duties of teaching and research and to award degrees and diplomas;
- accountable through their individual governing bodies.

As corporate bodies their powers are wide and substantial. They are able to enter into contracts, own property, engage in commercial activities, and regulate their own affairs. In effect, they may be involved in any activity that they believe will facilitate their work. The autonomy of each university derives from these powers.

There are considerable differences in how these powers are conferred on the universities. The "new" universities (*i.e.* those created from the former polytechnics under the 1992 Act) were established as higher education corporations under the 1988 Act. Most of the "old" universities were created by Royal Charters as chartered corporations; a few were established as statutory corporations by individual Acts of Parliament; one is a company limited by guarantee; and Oxford and Cambridge have neither charter nor an effective modern Act but do have statutes authorised by the Privy Council.

Governance

The binary divide, abolished in principle by the 1988 and 1992 Acts, persists in the formal structures of governance for the two groups of "new" and "old" universities. At one stage it had been expected that new constitutional arrangements would apply to all universities. In the event, it appears that the time necessary to resolve the many complexities inherent in the diverse legal frameworks of the "old" universities prevented this. It follows that the constitutions of the "new" universities correspond more closely to the contemporary political expectations of government. Indeed, "old" universities are encouraged to revise their constitutions in accord with this pattern. However, subsequent drift in implementation of governance in the "new" universities and changes already occurring in their articles of governance suggest that some of the surviving provisions still enjoyed by the "old" universities retain a competitive if not a managerial advantage.

Governance of the "new" universities reflects the structures used by the predecessor polytechnics. Their governing body is a *Board of Governors* with 12 –24 members. The "old" universities have a *Council* with a larger membership of 25 – 40. The composition of both *Boards* and *Councils* is defined in the articles of government or university statutes, differing mainly only in the ways in which members are selected or elected. In both cases it is specified that a majority shall be "lay" members, that is, neither academic staff, employees nor students of the university. The *Boards* or *Councils* will meet 6 – 8 times each year.

The *Board* or *Council* is identified as the body ultimately responsible-in-law for the university. The responsibilities of *Councils* were previously commonly characterised as related to the major business activities of a university: finance, property, employment, and student welfare. In recent years, much more explicit detail of their financial duties is included in summaries of the duties of both *Boards* and *Councils* [CUC]:

Finance – ensuring solvency of the institution;
approving the financial strategy, operating plans, budget;
ensuring proper use of public money;
maintaining financial controls and audit systems;
receiving and approving annual accounts.

Buildings and Property;

Employment;

Health and Safety at Work.

These changes reflect the greater emphasis on a need to satisfy the requirements of wide legislation in these areas and a code of accountability now established for all public bodies [Nolan].

In principle, the duties of the *Board* or *Council* necessarily also extend to the primary, academic activities of the university. Whilst a responsibility for academic performance and planning is frequently specified, this duty is normally delegated to the appropriate academic body, either by decision of the governing body or by explicit authority in the statutes or articles of government.

To perform their duties, the "lay" members of the governing bodies jointly need considerable technical expertise – notably now in financial matters – wide experience in management of complex organisations, and some familiarity with professional, public and educational concerns. In contrast to service on many other public bodies, members receive no payment for their work, which regularly will make considerable demands on their time. Much of the detailed work is handled by specialist committees, each of which will be chaired by a "lay" member and is heavily dependent on the expertise of other "lay" members. It is fortunate that invitations to serve as members of *Boards* or *Councils* are still seen to be both a mark of esteem and an opportunity to contribute to an aspect of public life of significance in the community.

Both *Boards* and *Councils* are expected to contain also representative members from university staff, non-academic as well as academic, and one or more students. Traditionally, some senior officers of the university were also *ex-officio* members of *Councils* (*e.g.* university secretary, deputy vice-chancellor). Recent practice has been to revise statutes so that the size of *Councils* can be reduced to that established for the *Boards*. The *Boards* make no provision for *ex-officio* members, though senior officers are regularly required to attend meeting to advise and comment. These changes can be seen to conform to an official view that smaller governing bodies should be capable of functioning with the responsiveness to internal and external stimuli of commercial boards of directors.

The constitutions of the "old" universities make provision for a large consultative body, the *University Court*. This meets once a year and will contain, in addition to all members of Council and the Senate, elected and appointed representatives from diverse sources: local members of parliament and local government, professional associations (*e.g.* doctors, lawyers, engineers, accountants...), alumni, schools, colleges and other universities, chambers of commerce, trade unions, students, and staff. There will normally be some 200-300 members. Its powers are limited. It may elect a small number of members of the Council; it will elect the Chancellor of the university (usually from a short list of one candidate); it will receive an annual report; and it may discuss any aspect of the university's work. These functions identify the Court fairly closely with the annual general meeting of a company's shareholders – though in the context of a university, the term

"stakeholder" might be seen to have some real meaning. As a public relations activity it appear to be both useful and in keeping with public expectation of accountability. It is perhaps curious that similar provision for a Court was not included in the constitutions of the "new" universities.

Academic Governance

Supervision of academic activities is performed by a *Senate* in the "old", or an *Academic Board* in the "new", universities. Their functions and powers mirror the distinctions between the two groups shown by their governing bodies. The *Senate* is identified as the "supreme academic body" in the "old" universities, reporting to Council but exercising full control of academic affairs. These include academic planning, research, the curriculum, academic standards, examinations, awards, admissions, and student discipline. It will meet each month during the academic year. Its membership is large – at least 50 and not infrequently over 100. The large membership permits extensive representation: from departments as well as faculties, junior staff as well as professors, and graduate and undergraduate students. In contrast, *Academic Boards* have a membership limited to 30, of whom at least half must be "senior academic managers" (i.e. Deputy and Assistant Directors, Deans, Heads of Schools). The authority of an *Academic Board* extends over a range of academic activities similar to that of a *Senate* but its powers are subject to final decision or approval by the Board of Governors or the Vice-Chancellor.

Abundant evidence demonstrates that while a large *Senate* satisfies the collegial aspirations of academic staff, its discussions do not easily lead to speedy decisions. And not infrequently its decisions are challenged, internally by segments of the academic community, and externally by more rapidly changing circumstances. Such experience provided a stimulus for legislating for small *Academic Boards* in the "new" universities. Recent developments have further modified the role required of the academic bodies. Academic autonomy has become increasingly restricted by external factors. External assessment of research, teaching, academic standards and awards implies detailed discussion and decision at departmental level; and the financial implications of admissions policy implies greater influence by the governing body and central administration on academic planning and strategy. In these circumstances it becomes difficult to resist the utility of a small academic decision-making body; this already exists in embryo form in many universities as a Senate Executive Committee. Yet the need for a fuller collegial contribution to discussion of academic policy remains important. It could be that both "old" and "new" universities might benefit from identifying this as the function of a Senate.

Administration and Management

It is convenient to include under the title of administration all those activities that support and facilitate delivery of the primary functions of the university: teaching, learning, scholarship, and research. In essence, it is the means by which the policies established for governance are applied to the institution. Much of the work is performed by specialist administrative staff in sections dealing with *e.g.* finance, buildings, personnel, enrolment, student records. Recruitment of staff to perform these tasks was a major undertaking for the "new" universities in 1988 when, as polytechnics, they became self-governing: previously staff in local and regional government offices had supplied much of these services. Academic staff contribute a substantial and increasing amount of time to academic administration in departments, faculties, and committees. Management identifies the structure of the system that coordinates these diverse administrative functions across the university. Responsibility for providing an effective management structure rests with the principal officers of the university.[1]

Formally, the head of the university is the *Chancellor.* This office is usually filled by a person of national eminence, perhaps a member of the Royal Family. It is a non-executive office. The duties are largely ceremonial or honorific, such as presenting degrees to graduates. The *Chancellor's* place at meeting of the Board of Governors or Council is normally taken by the *Chairman* or *Pro-Chancellor.* This is the person responsible for ensuring that the business of the Board or Council is conducted properly and efficiently. The wider powers now exercised by Boards and Councils have added to these responsibilities, especially in regard to public accountability. The legal responsibilities placed on *Chairmen* require them to be familiar with the operation of the university but official advice makes it clear that they are not expected to become involved in the normal executive management of the institution. [CUC] A national body, the Committee of University Chairmen, has been established to serve their needs, providing both a forum for exchange of views and discussion, and for lobbying on behalf of universities.

Responsibility for executive management rests with the *Vice-Chancellor.* One or more additional titles are frequently added: *Principal, Director, Rector, President, Chief Executive.* The duties of the *Vice-Chancellor* (*V-C*) are stated simply as the "chief academic and administrative officer of the

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[1] The international community of universities shares many structural elements. Frequently it identifies these elements by using a limited vocabulary. Unfortunately it is generally inconsistent in its use of terminology, designating dissimilar functions by the same name. The confusion derived from the differing titles attached to university offices in different countries provides an excellent example of the misunderstandings that this can cause.

university"; to which is now added "and the designated accounting officer for government funding". By analogy, the *V-C* is frequently considered to be equivalent to the managing director, chief-executive or president of a commercial organisation. Whilst the executive powers of some of the *Directors* of the "new" universities might begin to approach those found in industry, the analogy is flawed. No *V-C* can exercise executive authority to regulate the levels or quality of production of either graduates or research: in this respect universities resemble workers cooperatives more closely than commercial companies. Even so, it was a perceived failure of *V-C's* to demonstrate leadership in the form of managerial decisiveness that catalysed the movement for reform in British universities in the 1980's.

Designation of a *V-C* as the chief academic officer continues to be accurate only in that most have achieved some distinction as an academic scholar. Their administrative duties leave little time for continued academic work. Most will have obtained their experience and training as administrators in their previous appointments at another university, either as a senior officer – perhaps as a Dean or Deputy Director – or from membership of government committees or one of the Research Councils. Expectations that an increasing number of *V-C's* will be appointed after successful careers in industry or other parts of the public services appear to remain unrealised though a few distinguished civil servants, directors of research, or executives of charitable foundations are appointed from time to time. Most *V-C's* will have been appointed, or choose to remain in office, for about 7 years; few are persuaded to stay for a second term.[2]

Specific management duties will be delegated by the *V-C* to two groups of senior officers. *Deputy Directors* or *Pro-Vice-Chancellors* will be appointed or elected from senior members of the academic staff, usually for a fixed period of 3 or 4 years though in some of the "new" universities these are permanent appointments. The second group consists of the professional administrators. Traditionally, the *Registrar* or *University Secretary* will be the most senior of these, others being the *Finance Officer*, the *Buildings* or *Estates Officer*, the *Staff* or *Personnel Officer* and the *Planning Officer*. The *Registrar* will also

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[2] Vice-Chancellors from all universities meet regularly in the Committee of Vice-Chancellors and Principals, now renamed Universities UK. Originally a useful organisation for discussion of common concerns and exchange of opinion, this has now grown to be recognised as the major representative body for British universities. It identifies policies and objectives shared by the universities, represents universities in dealings with government, parliament and official national and international agencies, and provides central services and information to all its members. Its current budget, £3.5 million is provided by the universities and supports a substantial secretariat.

serve as Secretary to the Board of Governors or the Council and will have legal duties as the official "company secretary". Recently, with the added emphasis on financial accounting and financial planning, the stature of the *Finance Officer* has become of increased importance. All these senior officers will usually report to the *V-C*.[3] The group of senior officers will meet regularly as a management committee and also meet jointly with Deans to discuss academic issues.

The managerial function of these senior officers exists in parallel with the academic bodies – Senate, Academic Board, Faculty, Department – that discuss, advise and approve decisions within their competence. The system of checks and balances previously provided through a collegial system is now modified to satisfy a requirement for effective management. Decisions previously reached only after extended debate about allocation of resources or academic planning and staffing are now commonly determined managerially and merely confirmed by the Academic Board. Implementation of decisions is though more likely to be delegated to the level of faculty or department with Deans and Heads authorised to take the detailed decisions. Undoubtedly this is seen on occasion as a convenient means of distancing university management from unpopular measures; but, in the main, it also properly allows sectional interests to be better served. Moreover, it corresponds to an appropriate managerial structure given the existing pattern of centralised funding but departmentally focussed academic appraisal. Whether it also provides a managerial structure able to develop new dimensions and directions for the institution is less apparent.

Finance and Funding

Universities are not cheap, though governments are seeking to make them cheaper. British universities obtain an annual income (1999) of about £12 billion (approximately $17 billion, Yen 2.2 trillion). Less than half of this is derived from fees (22%, £2.6 billion) and payments for research and other services (20%, £ 2.4 billion). The largest single component (41%, £5 billion) is a subsidy from government: as this subsidy carries contractual obligations (numbers of students, availability of courses) it is evident that the universities do not possess financial autonomy with respect to their income [HESA].

This is not a new situation. Indeed, the proportion of income derived from government has fallen continuously over the past 25 years. During this period, actual expenditure by government on higher education has increased by about 50%; but the scale of provision of higher education has doubled. The

[3] Occasionally the V-C will delegate this coordinating role largely to a Pro-Vice-Chancellor. One prominent V-C has chosen to devote himself solely to external relations and fund raising.

consequence is best illustrated in terms of average unit income (i.e. amount of government subsidy per student). In the 10-year period from 1989-90 to 1998-9, government subsidised unit income fell by 50% from £7,400 to £3,800.[4]

The problems of maintaining universities with lower levels of funding are well known. Fixed costs can be covered with increased enrolment; but in doing so, academic activities become stressed. Previous attempts by government to pursue policies of reduced subsidy were limited by the concerted resistance of all universities on the grounds of their inability to sustain standards of teaching and research. In recent years these concerns about standards have largely been diverted by the introduction of quality assessment processes. Moreover, many "new" universities, with experience of lower funding as polytechnics, have been willing to accept large increases in student numbers at marginal levels of subsidy. This has allowed the system to grow at minimal cost. Nevertheless, in its major review of provision for higher education, the Dearing Committee expressed concern about the inadequacy of funding. It reported that additional funding was urgently needed to provide essential capital for equipment and buildings; and the then planned annual reductions of 3% p.a. in subsidy would indeed seriously damage the "quality of the student experience and the research base".

A possibility that some universities might solve their financial problems by charging higher tuition fees has been rejected by government. This demonstration of the inapplicability of market forces to provision of higher education is a useful corrective to the popular fallacy. Political decisions remain paramount. Following the Dearing report, government has provided some additional funding and the planned lower levels of subsidy have been modified.

Within the limits of the available resources, financial autonomy had previously existed in regard to expenditure by the universities. Subsidies were provided in the form of block grants, available for spending in accord with university priorities. Limitations of funding clearly constrain the freedom to exercise this autonomy. It is now further constrained by designation of components of the subsidy as provision for teaching or for research. This follows linkage of the quality assessment exercise for research to the amount of subsidy provided to a university. Previously, an unspecified part of the subsidy constituted support for research infrastructure in all universities. This basic component of the so-called "dual funding" provision for research has now been replaced by an allocation dependent on the aggregate assessed quality of research in a university's departments. In effect, this constitutes a

[4] The unit income received by universities fell by only 40% to £4,800. A new requirement that students should pay tuition fees (£1,000) provided the additional saving to government.

ceiling for the amount of subsidy provided by government through the Funding Councils while sustaining support for those achieving an appropriately high standard. In practice this allocates almost all the research subsidy to the "old" universities, identifying them as research universities. By default, the "new" universities are essentially funded as teaching universities only.

Quality Assessment.

The concept of identifying and maintaining acceptable academic standards is not new. Peer-review of research is integral to submissions for both financial support and publication of results. For teaching, at all levels, the British system of external examiners provides a measure of achievement and comparability amongst universities. Procedures to identify departmental excellence in terms of performance criteria are familiar elements of internal planning. What has changed is the quantity and extent of assessment for external purposes that now form central components of university operations.

The origins lie in establishment of the Council for National Academic Awards (CNAA) as the degree awarding body for students in polytechnics and other non-university colleges. The CNAA instituted arrangements for both external examining and detailed scrutiny of courses taught in these institutions. Its explicit purpose was to ensure that the standards of teaching and awards did not fall below those achieved in universities. Most of the assessors and examiners were indeed university academic staff; it became familiar to hear from them unfavourable criticism of the comparable university procedures.

A decision to apply similar assessments of both teaching and research in universities was taken on the initiative of the universities by the then funding bodies (UGC, UFC) in the 1980's. It was extended to the enlarged university sector by HEFC both directly and through its special subsidiary body the Quality Assurance Agency (QAA) in 1992. The QAA defines its primary purposes as: to secure value from public investment;

to encourage improvements in the quality of education;

to provide accessible public information [QAA].

To achieve these, three separate exercises are performed: a *research assessment*; *subject reviews* (teaching); and *institutional reviews* (administration). Different procedures are adopted for each of them.

The *research exercise* assesses the quality of research in some 70 separate subject areas (units of assessment, UoA). For each area, a group of subject specialists is provided with documentary evidence from the UoA in each university. This will include up to 4 publications (from within a restricted time-frame) for each researcher, numerical details of staff, research students, research grants and contracts, funding and other resources, and an account of

the research environment. Each UoA is assessed on a five point scale: level 5 (or 5*) corresponds to work of international excellence; level 1 is below the standard expected in a university. Attempts are made to ensure that the quality required for a given level is similar across all subject areas. No attempt is made to estimate the quality of research across the whole university; indeed, in most cases there is substantial variation between the component UoA's. However, the results aggregated across the whole university determine the amount of annual subsidy from HEFC designated for research [HEFCE (2)].

The *subject review* is the complementary exercise for teaching. It requires similarly voluminous documentary evidence from each department but also entails a visit from the appropriate specialist group of assessors. The visit lasts for about 1 week and provides an occasion for discussion with staff, students and administrators. Importance is attached to self-assessment by each department against a series of explicit criteria; the assessment reflects the success achieved in attaining both objectives and satisfactory standards.[5] Departments failing to reach a threshold level of teaching quality are required to take remedial action and may be required to undergo a further assessment within 12 months. This occurs infrequently. Again, no attempt is made to determine an overall assessment for the whole university. Originally it had been intended to use the results of the subject review to vary the amount of the annual subsidy from HEFC for teaching. In the event it became evident that this could reduce funding to less than survival levels for at least parts of some institutions and this intention has not been implemented.

The *institutional review* assesses the quality of administrative support provided for academic work across the university. Its procedure is similar to that of the subject review except that it does not yield a numerical score. The report generated by the review identifies strengths and weaknesses, some of which may require immediate remedial action.

Each of these assessments is performed at intervals of 4 - 5 years. The organisational burdens they impose are great. Academic and administrative staff spend about 1 year actively preparing the necessary documentation. The total costs, together with those of the multiple financial audit requirements are estimated to be about 5% of the total costs of government's higher

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[5] A structured framework is provided by a matrix of criteria and factors for assessment. The criteria are in the form of 4 questions: What is the objective? How is it to be achieved? Are the resources appropriate? How do you know it is achieved? Each of these criteria is applied to 6 factors: curriculum; teaching and assessment; student achievement; student support; resources; administration. The assessors award a score of up to 4 points to each factor: a score of 1 point is unsatisfactory

education subsidies. The universities, which pay a large part of these costs directly (and all of them indirectly), complain about the resources they consume. It is now proposed to restrict the subject reviews to those departments that have failed to achieve good scores in the past, and, for many universities, to combine institutional reviews with random sample subject reviews. In part this reflects the general acceptance that the criteria used for teaching assessments do offer valuable contributions to effective university teaching and will continue to be a component of internal procedures through self-assessment.

Students

A major change for students was introduction of student fees in 1998-9. Previously tuition fees had been paid by local government on behalf of all British full-time students. The political decision to charge fees, at £1000, for all courses, was made contrary to the advice of the Dearing report. It was argued by government that the level of fees, about 20% of the estimated average cost, represented a reasonable balance between private and public benefit from higher education. Moreover, it was a price worth paying to enable government to increase the planned age-participation rate and the level of funding subsidy. While economists recognise these arguments, cultural expectation of "free" education has ensured vigorous and sustained opposition. One of the major political parties is committed to abolition of the charges and many members of the government's own party share this view. In Scotland, the parliament has already modified the scheme to one resembling that used in Australia, of fees payable after graduation.

Imposition of fees, together with replacement of the last remnants of student maintenance grants by loans, was predicted to damage university enrolment. After a minor fall in 1998-9 (following a pre-fees surge in 1997-8) applications have remained undiminished, despite a smaller post-school cohort. In accord with expectations for massification, the proportion of applicants admitted has risen, from 60% in 1989-90 to 78% in 1999-2000, and the age participation rate from 19% to 33%. Concurrently, average admission standards have fallen. This is attributed to the lower standards and larger enrolments of the "new" universities. Non-completion of degree studies has increased, but it is yet too earlier to obtain any adequate analyses of the causes of this [CVCP].

Doubling the age-participation rate for school-leavers accounts for much of the surge in student numbers through the 1990's. But this has been accompanied by greater diversity in the student population. Half of all new students are classified as "mature" (undergraduate, age >21 years, postgraduate, age >25 years), and one-third are part-time: 90% of p-t students

are mature and 60% of mature students are p-t. Women students now constitute a majority. Yet the social-mix remains predominantly middle-class, in part a consequence of its ever-increasing demographic dominance. Government offers a variety of special provisions to encourage both universities and students to increase participation from disadvantaged groups in the community.[6]

Identification of students as consumers, and replacement of discipline-led teaching by student-centred learning, are familiar concepts though more readily identified in the "new" rather than the "old" universities. These are accompanied by evidence of changes to courses. Growth in sub-degree course enrolment remains high, mainly associated with p-t vocational courses.[7] New degree courses, notably in business studies, creative arts and design, and media studies, attract students, especially to the "new" universities. Conversely, the proportions of students and their academic attainments at entry in engineering, science, and education decline, except in the most prestigious traditional universities.

Academic Staff

Abolition of academic tenure for new appointments following the 1992 Act constituted a major change to the legal status of university teachers, perhaps most clearly through its emphasis on the teacher as "employee" rather than "member of the university". Protection of academic freedom to express deviant and unpopular views is provided in the legislation though in practice it may well be constrained by a combination of economic factors and quality conformity. The impact on employment has been significant. Increasing numbers of junior staff are engaged on short, fixed-term or part-time

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[6] Prominent in universities' objectives are commitments to growth and diversity in the student population. The strategic goal of Universities UK aims to "encourage wider participation in higher education, especially from disadvantaged groups, ...improve (access) to higher education; (and) recognise students as consumers and encourage responsiveness to their needs." It is noted that "(t)he student as consumer is here to stay and (this) affects universities' services, governance and marketing efforts" though there appears to be notably less emphasis on academic attainment than on employability of graduates [Universities UK].

[7] Sub-degree students constitute 10% of f-t and 75% of p-t undergraduate enrolments; they achieve about 20% of initial awards.

contracts.[8] In some areas, these limitations, together with the non-competitive level of academic salaries, make it difficult to appoint academic staff (and administrative staff) of the desired ability.

Academic pay continues to lag below that in comparable private and public sector employment, supporting a justifiable belief that, despite substantial increases in productivity, low salaries have been a prime contributor to lower unit costs [Bett]. Compensation for a few is found in the small increases in the proportions of professors and senior lecturers and in the higher rewards paid to staff recruited to augment research quality ratings. Generally, the evidence of continuing deterioration of student/staff ratios, albeit at a reduced rate, and of increased administrative burdens ensures that professional enthusiasm is not high. Nor has it been improved noticeably by establishment of the Higher Education Staff Development Agency to accredit teachers in higher education. All existing teachers have been encouraged to submit *c.v.'s* to allow them to be accredited by the Agency; all new teachers will be required to complete appropriate training schedules.

Conclusions

The last decade of the twentieth century saw the formal transformation of British university education into a massified system. Previously it had grown as an expanded elite system. Two concurrent changes made the transformation possible: legislation creating new universities and rapid growth in the rates of participation.

The major success has been to develop a massified system at a price that is deemed politically acceptable and which preserves desired components of the previous elite system. The changes has not been without stresses but most of these have arisen, not from factors expected to accompany massification, but from unrecognised problems that only with hindsight are seen to be implicit in the process.

The initial assumption that universities were either unable or unwilling to reform was shown to be wrong. Under the new contractual arrangements, enthusiasm for growth in the mid-1990's exceeded government expectations to the extent of panic. Enrolments were capped, with over-enrolment subjected to the same financial penalties as under-enrolment. Now, with the resources released by student-paid tuition fees, expansion is resumed with a target of 50% participation.

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[8] About 60% of academic staff have "permanent" appointments; 26% have fixed-term contracts, 13% are employed on a "temporary" or "casual" basis. Almost all staff employed solely for research are on fixed term contracts.

An assumption that the democratic virtue of increased enrolment would automatically broaden social access was also wrong. Introduction of charges for tuition are not directly to blame as less affluent students are exempted from them. More relevant are the accumulating debts derived from replacement of the former maintenance grants by student loans. The impact of immediate debt in place of deferred benefit presents a significant social barrier to wider access in a culture conditioned to "free" education.

The British degree structure impedes wider use of part-time employment by students as an obvious solution to this problem. Completion of degrees of an acceptable standard in 3 years is based on a pattern of full-time, intensive study. Though enrolment in 2-year sub-degree courses increases, pressure grows to extend conventional courses to 4 years. A combination of a less specialised secondary school curriculum and greater professional requirements in degree programmes support the claims for an extended period for first- degree studies. Both government and students resist these claims on financial grounds, preferring the alternative of more, and more selective, postgraduate courses. However, this solution might prove unable to protect achievable attainment at the level of first degrees or satisfy a desire in the European Union for comparability of standards.

Academic standards, accountability and quality assessment provide areas of immediate concern in the universities. The burdens – financial and organisational – of the regime of accountability are creating strong resentment within universities. The irony is apparently unrecognised that reforms intended to decentralise responsibility for university management are now hugely strengthening the intrusive control of central bureaucracy.[9] In particular, quality control of teaching, notwithstanding its evident initial benefits, is now seen as extravagant in its demands, especially by the "old" universities. This is in contrast to the response to research assessment, which, though resented, is accepted partly by virtue of its familiar peer-review basis but also because financial benefits flow to the participants. Even so, implicit in the research assessment exercise are basic changes to the block-grant

[9] The current "Transparency Review of Research" provides a particularly egregious example. This survey requires universities to identify the amounts of time devoted by members of the academic staff to teaching, research, and administration; and to correlate this with funding and teaching loads. The survey is described as providing information valuable to university management – which is true. It will also provide, in aggregate, data to allow operational costs and norms to be established across the whole system. Frequently, the British government is accused of "control freakery"; whether this is political or bureaucratic in character, the current experience of the universities confirms the belief that deregulation is not easily accomplished.

principle and removal of the claimed nexus between research and teaching. The fundamental conflict between accountability and university autonomy may provide a continuing area for conflict and concern in coming years.

Removal of the binary divide appears to have emphasised the differences evident in the national system of higher education. Increased diversity is welcomed by government. Yet this diversity appears also to generate a conflict of political concepts. The prestige, attainments and facilities of the older universities are acclaimed and yet these universities are criticised for their selectivity, elitism and processes. The newer universities are seen to be academically limited and undemanding while being innovative and responsive to societal needs. Already it is clear that a simple, two-dimensional hierarchy of teaching and research universities is being superseded by a multidimensional system. Given the concentration of clever and creative people dedicated to work in universities, this could imply a sufficient resilience to accommodate even the continuing enthusiasm for politically inspired intervention.

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Canadian Universities and Their Changing Environment:

Consequences for Academic Governance and Administration

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1. Introduction: Government Policy and Current Development of Higher Education

In line with the massive expansion and change in other industrialized countries Canadian higher education has changed quite dramatically over the last four decades. Although this is most evident with respect to the growth in numbers - students, faculty, and new institutions - change has affected higher education in other, more qualitative ways. While this article concentrates on the latter changes, including their effects on the internal lives of universities and the way they operate, some information might be useful for readers unfamiliar with the Canadian system on the development of the sector and characteristics of the Canadian university.

The growth of the system

Canada has gone further than most other countries in developing a mass system of higher education: 40 % of the Canadian population in the typical age group are enrolled in tertiary education, as compared to 35 % in US, 27% in the U.K. , 17% in Germany (OECD 1998). Canada spends more on public tertiary education (as a percentage both of its GDP and of total public expenditures) than any other OECD country. Between the 1960s and 2000, the number of university-level (i.e. degree-granting) institutions doubled in number, now standing at 76. During the same period, the number of full-time university teachers increased from approximately 4,300 to 34,600. University enrolment expanded from approximately 90,000 full-time students in the beginning of the 1950's, to over 820,000 in the late 1990s, of which 250,000 attended part-time. The increase in numbers was just as significant in the non-university institutions of advanced (post-secondary) education that had been established in the 1960s and 70s: By 1997 a total 560,000 students were enrolled in the 263 colleges and institutes, of which 28 % attended part-time. Together the two tiers of the higher education system enroll now some 1.4 million students.

The change from an elite to a mass system of higher education since the Second World War is a result of three major trends. First is the adoption of egalitarian policies

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which intended to increase education opportunities for returning war veterans, and later, the population at large. The aim was to make society more equitable by offering post-secondary opportunities to larger segments of the population, especially by extending access to university level education to groups outside the upper middle class.

Secondly, the promise of human capital theory, according to which the expansion of education opportunities and the development of the requisite facilities were investments for enhancing both economic growth and individual levels of income from work, led to increased social demand for advanced education opportunities. This emphasis on education as both an individual and public investment coincided, thirdly, with the expansion of degree programs and curricula for emerging professions like social work, teaching, and nursing training for which had been before taken place at diploma level institutions and programs.

As in most other industrial countries, the climate of post-war optimism and economic growth came to an end in the second half of the seventies and eighties when economies went into recession due to the oil price shock and other factors. This meant also an end to the unprecedented growth of the education system, especially when it became clear that the massive investments in education had not resulted in the expected economic benefits, i.e. concomitant productivity gains, growth, and the creation of new and sustainable employment.

Presently, the situation in Canada is changing though change does not figure as prominently as in the years of massive growth. The current period is characterized by a policy concern with the size of public debt and a consensus that public budgets cannot grow further but must be contained and public programs become more efficient. As a result, higher education has suffered disproportional budget cut-backs and due to the shortfalls of public funding institutions had to engage in efforts, unknown to most during the period of fast growth, to secure additional funding from other sources. There is a clear expectation by federal and provincial governments that post-secondary education in the future will have to operate with reduced public resources and that institutions will be held more accountable .

While financial controls were part of a general attempt to contain the costs of the public sector overall, financial shortfalls hit the higher education sector disproportionally hard. Earlier expectations that enrolment levels would shrink as a result of the demographic developments have not materialized. On the contrary, demand for post-secondary education, and for full time education in particular, is still growing, even if at a slower pace than in the roaring 1960s and 70s.

Part of the severe impact that cuts in the public budgets had on the higher education system is due to the fact that public budget that Canada, unlike many other industrialized countries such as the US and Japan, has accommodated the growing numbers of students almost entirely through a public post-secondary education system. At the beginning of the new century, this holds still true for the university sector, which has very few non-public institutions, all of them with a religious affiliation. However, in the vocational and technical sector many new private for-profit institutions have emerged over the last few years. The exact number of these institutions is difficult to ascertain but it is estimated that there are currently some 2,400, most of them small, enrolling approximately 1.2 million students (Sweet & Gallagher 1999). This emergence of a large private, post-secondary training sector, which offers short and specialized programs but no academic programs leading to a degree, is an indicator of both a strong market demand for vocationally or job-related qualifications and the inability of the college and institute sector to respond to the dynamics and the size of this demand.

Main characteristics of Canadian universities

Legally, Canadian universities are private corporations deriving their powers from provincial legislation by which they are set up and which provide a framework for their structures and procedures. Each university hires its own staff and decides on payment and other terms of employment, much like private corporations do (thus differently from countries like in Japan and Germany where university employees have the status of civil servants). Universities are free to set their own admission standards, establish their own programs (which however must be approved by government in order to receive funding), and determine the content of their programs and courses (Cameron 1991; Hardy 1996).

Universities receive their operational funds as well as much of their capital funding from the provincial government. The former are calculated as a mix of individual negotiations with the government and an enrolment-based formula. Research funds come from different sources, yet the prime source are the federal research councils, mentioned above.

The great majority of Canadian universities has a bi-cameral governance structure consisting of a governing board which makes all business decisions, and a central academic decision-making body which operates independently from, but in parallel with the governing board. The senate, which is a collegial body, composed of professors and other academic staff, administrators (the deans) and students, is responsible for the academic governance, i.e. has the power to regulate all thinks academic. This includes, for example, deciding on the content of courses and programs,

setting forth the admission criteria for students, determining the appointment of professors and other academic staff, and making recommendations to the governing board on all other academic issues including the establishment or discontinuance of faculties, departments, programs, chairs, etc.

One of the remarkable new developments is the emergence of some new types of university level institutions over the last decade that have deviated from this bi-cameral system and especially the principle that academic matters are for a collegial body to decide. For example in British Columbia, the country's most western province whose population has been growing faster than in the rest of the country, two universities have been set up during the last five years which did not have a precursor in Canada. One is a university which does not offer undergraduate degrees but only graduate studies in a few selected fields (Royal Roads University), the other a Technical University which offers undergraduate and graduate programs, yet limited to technological fields and business programs. Both institutions are a departure from the traditional way of structuring and governing universities (I shall return to this problem below).

Qualitative changes

The dramatic increase in numbers was accompanied by a number of qualitative changes which have consequences for the way universities are governed. Four are mentioned here as examples: (1) the trend towards applied fields of research and study, (2) the process of internationalization, (3) the commercialization of university research, teaching, and services, and (4) the move towards new models of institutional governance and organization.

(1) Although the tradition of liberal arts education is strong in Canada, there is a tendency towards greater vocational and labour market relevance of academic programs (Fisher & Rubenson 1988). This "vocationalization" of the university curriculum manifests itself in several ways, in particular through the greater emphasis on, and the growth of, so called 'applied' or 'professional' programs. Hand in hand with this more functional view of the teaching function of higher education goes a strong policy interest in university research that is 'applied' (as opposed to " basic" research) and relevant to the needs of industry. This utilitarian view of the university's research function finds its conceptual base in various economic theories, e.g. the 'new growth' theory, the concept of the emerging 'knowledge-based economy' (Rubenson & Schuetze, 2000), and the theory of 'innovation systems' (Lundvall 1992) · all of which consider knowledge to be the pivotal factor of innovation, competitiveness and growth in the 'new economy'. This places strong pressures on universities and university researchers not only to produce knowledge

that is economically useful, but also to assume an active role in the transfer and the commercialization of the results of such research.

(2) Partly as a result of the free trade policies that were put in place in the 1980s and 90s barriers to the free flow of goods, capital, commercially relevant ideas and highly educated people were abolished or lowered. As a consequence, there has been a marked shift towards greater internationalization of higher education. This trend manifests itself in various ways. Canadian universities and colleges have, like institutions in other countries, especially the US, started to cater to foreign students in greater numbers. They participate in government trade missions abroad and in large international fairs, with the objective of 'recruiting' foreign students. From the perspective of the universities, the drive to increase foreign student enrolment appears to be primarily motivated by the expectation of foreign student fees (which are substantially higher than those for domestic students). From the perspective of the government, it is also, and more importantly, a mechanism for attracting new talent from abroad to stay and work in Canada.

Another aspect of internationalization is the mobility of faculty and of graduates across national borders. While Canada has for many years benefited from the immigration of highly educated people from the US and other countries, there is now a growing policy concern about a reverse 'brain drain' of top researchers and faculty to the US, as salary levels and working conditions offered by US institutions tend to compare very favourably with those in Canada. A similar concern applies to the southward mobility of Canadian graduates in particular fields such as computer sciences and biotechnology. Both the federal and several provincial governments have put specific programs in place to make working in Canada a more attractive choice.

(3) As public funding for higher education was reduced, the various provincial governments called for greater efficiency in the use of public grants, and for universities to find additional sources of funding. The search for funding from non-governmental sources has led to efforts on the universities to sell some of their services in the market. The resulting controversy about the issue of commercialization highlights two different basic concepts of, and ideological approaches to the nature and function of higher education, and of education in general. While many argue that education is a public good and should not be "for sale", others with a neo-liberal inclination think that post-secondary education is a service much like others and, as a consequence, market mechanisms should be allowed to play a greater role. While this controversy is still at the centre of a heated debate about function and form of university education, many analyses show that creeping 'privatization' of higher education is clearly on the rise, manifesting itself not only in the form of commercialization of university research and teaching services but also in

'merchandizing the campus' (see for example Tudiver 1999).

(4) The requirement to greater accountability partly coincided with, and partly was the result of, the emergence of new models of institutional governance and organization. Concepts of the 'entrepreneurial university' were promulgated (e.g. Clark 1998) which put increased emphasis on leadership, initiative, the development of individual institutional profiles, and greater independence on funding from government. While this trend towards the 'entrepreneurial university has gone as far in Canada as it has in some other countries, especially the US, there are examples of recently founded universities that point into the same direction. The examples of the Royal Roads and the Technical University in British Columbia have already been mentioned.

Some of these qualitative changes have only marginal consequences for institutional governance. Thus, the trends towards more 'internationalization' has had no visible effects on the structures and processes of universities, besides the creation of central offices responsible for student 'recruitment' and student exchange. The 'vocalization' of the university curriculum has so far affected mostly professional and technological fields. In these, the number and influence of program or curriculum advisory boards with external members from industry and commerce have increased. Also, the efforts of increasing the labor market relevance of university education have resulted in the sizeable growth of 'cooperative education' programs in Canada which combine university level education and practical training periods at private companies (Grosjean 2001 forthcoming). By contrast, the impact on university governance of changing funding regimes and of new 'entrepreneurial' concepts is much more pronounced and consequential - as will be shown below.

2. Governance on the system and institutional level: Government responsibility, coordination and financing

To call the Canadian higher or post-secondary education system a "system" is stretching the meaning of the term. If a system is defined as a set of institutions that form an integrated whole, working together within well defined relationships, governed by established rules, and coordinated in a consistent fashion - then there is no actual Canadian system. However, here are a number of basic rules and concepts that do link the various components together.

Provincial and Federal Responsibilities

Constitutionally, post-secondary education is, as all education, part of provincial

jurisdiction. That does not mean that the federal government has no role in higher education. This role has developed over time 'under conditions akin to chronic schizophrenia', caused by the attempt to "combine constitutional propriety with political expediency" (Cameron 1997 p.9). Trying not to provoke the provinces, especially Quebec, the federal government has therefore used a 'back-door approach' (Press and Menzies 1996) by adopting legislation in areas where it was constitutionally safe to do so, such as work force training, research and financial assistance to students, and through the power of the purse, in particular through use of federal-provincial agreements for shared-cost programs and federal transfer payments for post-secondary education.

In spite of the federal activities, and because of their covert nature, the Canadian "system" is a provincial system. While the provincial quasi-systems have some comparable structures and using much of the same terminology, they have quite different rules and arrangements concerning degree-granting, access, curriculum, student mobility and planning (Jones 1997). The principal reason for this wide variety is the constitutional distribution of powers, as mentioned, and the different history and development in the various provinces. The resulting wide variety of types of institutions, structures and rules is in contrast with other federal systems such as Germany, where the federal government has a formal role in setting forth the organizational framework within which provincial systems operate, providing national-wide standards in relation to such matters as structures, rules of admission, status of the professoriate, recognition of degrees and other matters which facilitate student and faculty mobility across the jurisdictions of the Länder (Teichler 1992; Cameron 1992).

Diversity and Coordination

There is a wide array of different types of institutions in the various provinces. Besides the two archetypes, universities and community colleges, there are university colleges, institutes of technology, schools of craft an design, maritime institutes, open and distance colleges and universities, the collèges d'enseignement générale et professional (cegeps) in Quebec, and aboriginal colleges (see articles on the various provincial systems in Jones 1997).

This diversity of institutions is both an asset and a liability. While students have a wide choice of programs, qualifications, and modes of participation, student mobility between the provinces and even between different institutions within the same province is a problem. This is largely due to three factors:

(1) The difficulty of recognition of credits and credentials due to a lack of

standardization which would facilitate portability of credits from one institutions to another. The great degree of autonomy that in particular universities in Canada enjoy includes the right to define criteria and standards of their own for admission, to design programs and curricula, and to prescribe prerequisites required to enroll in programs and courses.

(2) A lack of clearly established rules for transfer between the different parts of the post-secondary education system and of effective coordination mechanisms in the various provinces. The former is the result of the unsystematic and uncoordinated ways the post-secondary sector has grown in the 1950's and 1960's. With few exceptions, provincial governments established the various categories of institutions - universities, community colleges, institutes of technology, agricultural colleges, colleges of art and design etc.- independently from each other, with nor or little regard for the linkages among each other and for student mobility among them. Thus, in some provinces, there are three distinct post-secondary education sectors, governed by different legislative acts and funded according to different formulas. While degree-granting universities are fairly similar across the provinces, the role and mandate of non-university institutions vary.

Coordination between the different institutions in most provinces has been unsystematic and in some provinces virtually non-existent (Dennison 1995; Skolnik & Jones, 1993). A few provinces have set up special coordination mechanisms or bodies, such as the Councils of Admission and Transfer in British Columbia and Alberta. These bodies have no formal regulating powers. Their role is thus limited to informing , articulating and convincing institutions to negotiate what is considered as "credit equivalents". Given the strong institutional autonomy, any arrangement of credit recognition transfer needs to be voluntary - in spite of the fact that credit transfer between institutions is recognized in principle.

(3) The lack of a federal or inter-provincial agreement on student mobility. In principle, Canadian provinces are free to discriminate against students from another province by, for instance, levying higher tuition fees from them. Unlike in the US however where most states require higher fees for out-of-state students, none of the provinces request differential fees from Canadian out-of-province students. The sole exception to this situation is Quebec where tuition fees are lower than in all other provinces and where out-of-province students must pay the differential between the Quebec fees and those that they would have to pay in their home province.

In the absence of inter-provincial agreements on credit equivalency and transfer, most institutions have taken the initiative to address the problem through their provincial and national associations such as the Association of Universities and

Colleges of Canada (AUCC), and the Association of Canadian Community Colleges (ACCC). Also, the Council of Ministers of Education - where all the provinces are represented, but not the federal government - agreed in 1995 to a pan-Canadian recognition of credit transfer for the first two years of undergraduate study. The Council was quick however to clarify that this would "in no way infringe on the academic autonomy of the universities, ... (i.e.) the right of universities to determine program design and delivery, to determine academic pre-requisites and to establish admission criteria and certification requirements of academic achievement" (CMEC 1995). The Council's reassurance regarding university autonomy is mentioned here to demonstrate that the educational policy makers have seen the problem of barriers to inter-provincial student mobility. However, so far they have been unwilling to legislate, or regulate through other instruments, such as funding, to bring universities to recognize course credit from other universities.

In spite of the lack of a national accrediting body, university programs are remarkably uniform in structure and quality across the country. The AUCC acts as kind of a gatekeeper to academic respectability and acceptance and in order to become a member, new institutions have to undergo some thorough screening of the academic nature of their programs and courses and the internal processes of control of their standards and quality of programs. Therefore, membership in the AUCC is generally taken as evidence that the structures and processes of a particular institutions and particularly its degree awarding programs are acceptable with regard to academic standards and practice. As a consequence, degrees from member institutions are recognized practically everywhere in Canada.

In addition to the AUCC, there are a number of agencies that evaluate the quality of professional university programs, such as the provincial bodies responsible for overseeing teacher accreditation or professional societies that require certain prerequisites and minimum standards for engineering, law or accounting programs. There are further other administrative and academic networks within which universities and colleges exchange information and cooperate. All of this cooperation results in a relatively strong homogeneity not only of the formal structures of universities and colleges but also of the structure of the formal qualifications they award .

Thus, it is not for reasons of non-comparability or non-compatibility of standards or quality of programs that intra-provincial and inter-provincial mobility is a problem for Canadian students. In spite of the homogeneity of structures, there is considerable variation in the content of individual programs and courses - a consequence of the principle of institutional autonomy of universities with respect to admission policies, planning and organization - which makes coordination difficult. The lack of formal

coordination is exacerbated, as shown above, by the tradition of government non-intervention in university affairs, with the exception of finance, including fee levels and structures, and the recognition of new programs for funding purposes. In contrast, publicly funded colleges and institutes are much more subject to direct regulation by provincial governments.

3. Financing, control, and the shift from a public good to a market model

Since almost all Canadian universities and colleges are public institutions, higher education and university research in Canada are in principle publicly financed. Indeed, about three quarters of the funding for post-secondary education is provided by provincial and federal sources. The balance comes primarily from student fees (which account for approx. 15 to 20 percent of the operational budget) and some other types of revenues. The latter have been traditionally small however. Apart from the University of Toronto and McGill University, few universities have significant endowments. In contrast to the United States, private contributions are negligible as there is a lack of a philanthropic tradition. Foreign ownership of much of the manufacturing sector, and reliance on mature, resource-based industries which do not invest much in research and development explain the limited availability of private sector support for academic research.

Although the federal government has been very careful to be seen respecting the constitutional division of powers that places responsibility for education with the provinces, it has assumed, as noted before, an increasing share of financial responsibility for the operation of universities, either through indirect payments, transfers to the provinces, or in the form of research funding and student support. The bulk of th research funding comes through the three national research councils, but federal funds are also expended by other government departments and agencies.

As mentioned above, the federal transfer payments to the provinces has been cut back drastically. From 1994 on the transfers to the provinces for post-secondary education were frozen at 1993/1994 levels and the allocations to the research councils were cut substantially. That left the provinces, which were confronted with both a continuous demand for study opportunities in post-secondary education and with rising costs, with the need of finding money from other parts of the budget, to cut higher education budgets, or to impose efficiency measures forcing the institutions to do more with less.

Performance-based funding

The provinces reacted to the financial crisis in various ways. While some maintained by and large the level of their grants to universities and colleges, others imposed severe cuts which were often combined with measures to increase 'performance' and 'efficiency'. Thus, for example, Ontario, the most populous of the provinces, introduced a number of Key Performance Indicators (KPI) to measure universities' efficiency and holding them more accountable. All universities in Ontario are required to publish information on (a) graduation rates, and (b) the employment status of 1996 graduates, six months and two years after graduation for all university programs. The assumption on which these measures are based is that universities should take an active interest in the success of their students and that both current and prospective students will make an informed choice about where and what to study.

From the 1999 -2000 academic year on, the Ontario government has required all post-secondary institutions (not just the universities) to provide information for current and prospective students on three provincially determined measures, namely (a) graduation rates, (b) employment rates of graduates six months after graduation, and (c) student loan default rates. With regard to the universities the government went a step further: For the first time, a relatively small portion of the university operating grants has been distributed based on the institution's performance in these three areas (Grosjean et al. 2000; Bruneau & Savage 2001).

With that step, Ontario joined Alberta, so far the only other province in Canada to introduce performance-based funding to the post-secondary education sector. They are following an international trend towards greater accountability of higher education institutions and countries such as France, Britain, the Netherlands, Australia, and New Zealand which have systems of performance-based funding in place (Atkinson & Grosjean, 2000).

Other provinces have introduced 'efficiency' or 'productivity' measures that are not called 'performance indicators' although they amount to something similar. Thus for, example, British Columbia has, in the annual budget letters to the universities, set up enrolment targets which were couched in the form of Ministry 'expectations'. While universities were free to decide whether or not they would meet these expectations, their decision not to comply drew negative sanctions in the following year's budget so that, in effect, funding was tied to student enrolments. (Schuetze & Day, 2001).

The introduction of measures such as performance indicators, 'benchmarking' and performance-based funding means moving towards a market model of education that

shifts responsibility for the efficient provision of post-secondary education from the government to institutions. Such a move is part of a larger politico-cultural shift from public to market principles and mechanisms such as productivity, efficiency, principles of cost-recovery, competitiveness, and entrepreneurship in the provision of public services. Critical observers regard this shift as incompatible with the mission and function of higher education (see e.g. Birnbaum 2001).

Diversification of revenues and the commercialization of university functions

Partly as a result of this larger shift from public good to market principles and mechanisms and partly also out of necessity to generate revenues from other sources, Canadian universities and colleges have begun to commercialize of their services and products. At this time, this regards primarily university research activities, but increasingly also instruction.

Following the example of other industrialized countries, especially the US, which has put policies into place to enhance industrial innovation and international competitiveness through increased and intensified collaboration between universities and private companies, the government of Canada has introduced a number of measures that are designed to promote collaborative research ventures and the protection and commercialization of intellectual property.

Examples include the establishment in the 1980s of 15 national Networks of Centres of Excellence in which universities and industrial firms cooperate closely on research in specific areas that are defined to be of strategic importance for the Canadian economy. Industry liaison or technology transfer offices exist in virtually all Canadian universities and technical institutes as well as in many community colleges. These organizations were created in order to promote research linkages with industry and to pass on to private companies results of the research activities of university researchers for taking them to the market. Since these initiatives did not seem to deliver the intended results, an Expert Panel on the Commercialization of University Research was set up in 1999 which recommended that Canada should emulate the US example: in order for university researchers to qualify for federal research funding, universities should require researchers to disclose all research results with commercial potential to their institution. Universities are required to report annually all intellectual property emanating from publicly funded research to the federal government, and demonstrate efforts to commercialize those results found to have innovative potential (Expert Panel 1999).

The recommendations point clearly in the direction of a much greater active role in

entrepreneurial and marketing activities that the universities are expected to play. Since most of university research in Canada is, as noted already, financed from public sources, the intended financial incentives and sanctions attached to government grants will leave the institutions little choice but to comply. But even in the absence of such coercive regulations, university research agendas are already influenced by the commercial interests of the private sector as many of the existing public research grants require cooperation or partnership with industry. Thus, it is fair to say that Canadian universities that had resisted commercialization longer than countries like the US, the UK or Australia are now well on the way to a system of "academic capitalism" (Slaughter and Leslie 1997).

Academic instruction is another of the core functions that is now gradually being commercialized. New private for-profit institutions that are based in the US have started to successfully compete by offering on-line services to Canadian students. Partly in response to this nw competition, some of the Canadian universities are now also developing distance courses and programs, to reach prospective students both in Canada and abroad in order to increase income from student fees. In doing so, the pedagogical process of academic teaching and learning is transformed into a commercial product which can be widely marketed and distributed. By applying some of the elements of industrial production to this form of academic instruction - e.g. cutting production cost by employing less qualified personnel and reducing mechanisms of quality control, standardizing the product content for catering to mass markets, concentrating on those parts of instruction that can be easily codified - the character of academic education, it is argued by critical observes, is fundamentally changed as academic knowledge is becoming a commodity, and commercial on-line universities "digital diploma mills" (Noble 1998; Birnbaum 2001).

4. Institutional autonomy and self-governance

Some of the changes of the environment in which Canadian universities operate are having an effect on the way they are structured and governed. Given the considerable degree of university autonomy and the variations that are the consequence of the provincial jurisdiction over (higher) education, this change is not reflected in major government documents or comprehensive acts of legislation that affect all Canadian universities. Rather changes occur in a piecemeal manner and through a process of adoption, negotiation, and 'mimetic isomorphism', i.e. copying successful models from other provinces.

Three examples of changes in university structures and processes are briefly discussed here: (1) the role of the academic senate for guaranteeing academic

autonomy and freedom, (2) the strengthening of the administration as a result of the shift from traditional academic to managerial governance, and (3) the impact new funding patterns and multi-source funding systems have on the universities.

(1) Academic self-government and the senate

While the differentiation between the governing board, a business-like executive organ, and a collegial organ for the debate and decision on purely academic matters can be seen as a matter of honoring tradition stemming from times when universities were small and serving a small segment of the population, the academic senate is understood by many university members, especially the professoriate, as the most important instrument of academic self-government, and the debates about all academic matters in this forum a procedural guarantee of academic freedom. A summary case from British Columbia study highlights the role of the academic senate.

When the new Technical University of British Columbia (TechBC) was set up in 1997, it was given the mandate (a) to offer programs "in the applied, technological and related professional fields that contribute to the economic development of British Columbia, (b) to conduct applied research and development, and (c) to create strong links with business ... and (d) to develop programs that are relevant to .. industrial and professional initiative" (section 2 of the Technical University of BC Act). This mandate was new in that it limited research and teaching to applied and technological fields and that it was to serve economic development in the province.

The new university was also to have a new governing structure. Instead of the traditional bi-cameral system with a governing board and an academic senate, the Act foresaw solely a board "which may exercise the powers of the board of governors or senate of a (normal) university, except those powers and duties given to the president" . It was given the mandate to "approve strategic program and research direction and policies, including instructional program and research priorities, program objectives and desirable learning outcomes" (section 8). The university president was given the power to "establish educational and research plans in accordance with the board's direction and make recommendations to the board on academic qualifications for admission of students" (section 10). Although the Act established also a small 'university council' composed of some faculty members, students and members of the program advisory boards with whom the president was to 'consult', the powers to *decide* on academic matters were clearly vested in the board and the president.

When it became obvious that the provincial government was not ready to change the

organizational design of the TechBC, in spite of serious objections by the Canadian Association of University Teachers (CAUT), the CAUT decided to boycott the new university. As the Association represents 25,000 university professors and other academic staff across Canada and is well connected with similar organizations in other countries, the CAUT's argument that BCTech was abridging academic freedom and self-governance carried considerable weight. The boycott, besides constituting a major embarrassment for the government, was endangering the prospectus of the new university to recruit senior and well-reputed academics and the chances to be admitted to AUCC membership which, as was pointed above, is de-facto the equivalent of an accreditation. As a result of intensive negotiations between the CAUT and the TechBC, a compromise was reached six months later and the boycott was called off . Most important among the changes that were negotiated was that the new university would establish an 'Academic Planning Board' which had all the powers of an academic senate, except the name.

The TechBC case is symptomatic for the new model of an 'entrepreneurial university' and the shift towards business-like principles and mechanisms in higher education that were mentioned before. It follows from the logic of this shift that the organizational design of new institutions are conceived more like business organizations, with business-like structures with regard to decision-making and control as well as a more instrumental mandate that links knowledge and skills closely to outcomes.

(2) The new managerialism

The rapid growth of the Canadian system of higher education in size, complexity and cost was accompanied by demands for greater accountability. More and more complex data were needed for planning, cost-analysis and control requiring sizeable management information systems, and management techniques.

Management models that had originally been developed for private business organizations were now applied to universities and other institutions of higher education. Consecutive waves of management styles and techniques rolled (and are continuously rolling) through the universities, all leading to the growth and increased centralization of the university administration. These management techniques were meant to bring to the university administration elements of rationality, hard data, linear logic, order, and efficiency. Long-Term Strategic Planning, Management by Objectives, Zero-Base Budgeting, Benchmarking, Business process Reengineering and Total Quality Management are examples for such management styles or 'fads' (defined as 'practice or interest followed for a time with exaggerated zeal', Birnbaum 2001). The present pre-occupation with performance indicators, referred to above, is

another example of the attempt to 'measure the unmeasurable' (Grosjean et al, 2000) and to imbue universities with a sense of market mechanisms and competition, based on quantitative data and models of productivity and efficiency that are borrowed from the business world.

The trend towards greater managerialism has led to a strengthening of central administrations in Canadian universities and, conversely, a reduction of collective and individual autonomy. In quantitative terms this is visible from the reduction in the number of university teachers and researchers (approx. 20 percent over the last decade) and a concomitant increase of personnel in the central administrations. In order to cope with the requirements for more data, more focus on special populations, and the needs to establish and maintain linkages with various parts of the environment, universities have added a considerable number of specialized offices and of professional staff that receive their mandate from, and report directly to the senior management.

(3) Funding patterns and multi-source funding

In pursuit of holding universities more accountable and having a greater say in how public funds are being spent by them, governments have increasingly resorted to new patterns of funding. Whereas in the past operational budgets were given to universities in the form of block grants with little direction as to how they were to be used, funding comes increasingly in envelops that specify in detail for what the money is to be spent. As such 'targeted funding' has been on the increase, so has the complexity of the management and accounting associated with this type of funding. At the same time, targeted funding has meant a certain erosion of the financial autonomy of universities (Schuetze & Day 2001).

The new requirements, already mentioned, of greater accountability and of finding funding from multiple sources have led to more centralized systems of fundraising and financial planning. Many universities in Canada have thus established special offices for development, which are looking for outside sponsors and new private sources of funding. Also, universities, in search of money to compensate for public funding shortfalls, have started "merchandizing the campus" (Tudiver 1999) by signing licensing and franchising agreements and partnerships with businesses who are targeting students as consumers of their goods and services. All of these activities entail complex methods of financial control and accounting which have increased the tendency towards strengthening the central administration at the expense of the universities' academic units and individual faculty members.

The three examples above illustrate the ambiguity between, on the one hand, the

tendency towards centralism which is inherent in more recent models of university governance, and, on the other, the traditional model of decentralized authority and collegial government which has been characteristical of Canadian universities in the past. These newer models which emphasize leadership, efficient management and entrepreneurialism are seen by some analysts (e.g. Clark 1998; Askling & Kristensen 2000) as responses to the need for coping with changing, and increasingly complex and dynamic environments. Others (e.g. Birnbaum 2001) believe that the import of business models of management in higher education is inappropriate and dangerous arguing that these techniques will not only change the management but the very function of universities.

Summary

As the environment of higher education in Canada is changing, so are university structures, functions and modes of governance. Many of the changes in the environment are not specifically Canadian but affect other developed countries as well. Unlike however in many other countries, for example Japan, university reform in Canada does not follow a master plan, embodied in a major national policy document or an Act of the national legislature. Rather, due to both the provincial jurisdiction over education and the considerable autonomy that universities traditionally enjoy, change is mostly unsystematic and piecemeal, ad hoc and negotiated, and sometimes the result of adopting features from successful models in other jurisdictions.

In spite of this more evolutionary process of change, certain tendencies can be observed that are characteristic of the direction where the system is moving as a whole. Five tendencies are noticeable in particular: (1) In the name of accountability and greater efficiency required from public institutions, governments are stronger meddling into decisions that were left to the universities themselves to decide in the past. This is primarily done through funding mechanisms such as performance-based funding and targeted funding, but also through other mechanisms such as performance indicators; (2) linkages between universities and the economy are intensified, especially regarding industry-relevant research and transfer of technology and know-how to industry; (3) market principles and mechanisms are increasingly applied to public institutions, including universities. This is especially visible with regard to management techniques that have been developed for increasing the productivity and efficiency of business organizations, but affects many other activities as well; (4) the central administration of universities is strengthened at the expense of collegial decision-making and autonomy of sub-units (such as departments) and individual faculty members; (5) increasingly, university functions are commercialized

as universities are moving from a public good model to a business model. So far, this has affected primarily research, but it is increasingly also affecting the teaching function.

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Higher Education and Its Relation with Economy

- from Japan's Experience of Higher Education Policy -

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I. Introduction

Due to the rapid development of science and technology, each country has become aware of the importance of them for the national economy and its international competitiveness. The end of the Cold War has made each government regard science and technology as the engine for economic development and social welfare, including the most advanced technology and environment protection, more than as the tool for military purposes. The emergence of information technology and biotechnology has changed the role of basic research that has tended to be far from commercial use. The relationship of university with government and industry become stronger and universities are expected to advance our frontiers of knowledge that is important for our society.

An OECD's report says, "With the increasing emphasis in recent years on national economic well-being and international competitiveness in OECD countries, the production, application and use of new knowledge have taken on major importance. As key sites both for research into new fields and for the training of future researchers and skilled personnel, universities and other higher education institutions have found themselves inevitably drawn into the modern national policy arena."(OECD, 1998) This means that universities are expected to play the key role for national economy through their advanced research and their education for future skilled people.

Japan has nearly a hundred and twenty years' experience in training scientists and engineers since modernization of its higher education system in the late 19th century. Here, with the relationship to economic factors in mind, I would like to introduce Japan's development of higher education system and also would like to describe how science and technology have been treated in the system.

II. Specific Features of Japanese Higher Education System

With over 1,200 universities and junior colleges and 3 million students enrolled,

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Japanese higher education system is the largest in the developed countries following to the United States. About half of Japanese youth pass trough this massive system. As showed in Figure 1, about 40 percent of undergraduates study the social sciences, such as law and economics, a much higher proportion than in the U.S., United Kingdom, Germany and France. This top academic priority of Japanese higher education is followed by engineering, also high in the developed countries relative to the national sciences. Engineering is the most popular study area in master's programs, while medical and health-care related fields lead the doctoral programs (see Figure 2).

Despite the large undergraduate population, relatively few go on to graduate schools. The Education Ministry (Mon-ka-sho or MEXT in Japanese) survey found a ratio of only about 7 percent graduate students to Japanese undergraduate population, compared to 13 percent in the U.K. and U.S. and 18 percent in France. The number of Japanese graduate Students per 1,000 people in the general population is less than half of those other countries. Despite broad enrollment in higher education, Japan has a very thin tier of intellectual leaders, and this problem is raising awareness among those involved in education, including those in government. Expanding graduate programs has been a major policy priority for the Education Ministry for several decades.

In contrast to Europe, where government-run, often tuition-free schools form the core of higher education systems, private universities are far more important here in Japan. Private schools enroll even more students than in the U.S., where they are also very prominent.

During the rapid expansion of higher education in the 1960s, private universities admitted ever-increasing numbers of people seeking to learn, and worked to fulfill their varied needs. People in Japan and the rest of East Asia are generally considered education enthusiasts, and the huge presence of the private sector in higher education here may endorse that point. About 75 percent of institutes of higher learning are private, serving a similar proportion of Japanese undergraduates. That percentage is even higher among junior colleges.

Figure 1 Size of Japanese Higher education May 2001

	Total	National Institutions	Local Public Inst.	Private Inst.
(Enrollment)				
Undergraduate	2,487,140	466,341	97,454	1,923,345
Master's Programs	150,797	87,687	7, 215	55,895
Doctoral Programs	65,525	46,406	3,540	15,579
Junior Colleges	279,488	6,464	19,038	253,986
(Number of Schools)				
Universities	669	99	74	496
Junior Colleges	559	19	51	489

Source: The Education Ministry's School Basic Survey

Figure 2 Breakdown of University Students May 2001

	Total	Undergraduate	Master's Programs	Doctoral Programs
Total	2,703,462	2,487,140	150,797	65,525
Humanities	431,146	412,364	11,664	7,118
Social Sciences	1,014,752	984,747	23,383	6,622
Science	107,910	88,711	12,897	6,302
Engineering	536,506	463,428	60,913	12,165
Agriculture	82,153	69,846	7,946	4,361
Medical/Dentistry/ Pharmacology	178,347	149,855	7,542	20,950
Education	148,534	135,488	11,439	1,607
Others	204,114	182,701	15,013	6,400

Source: The Education Ministry's School Basic Survey

From the view point of academic research, national universities are outperforming private universities. While the private schools enroll far more undergraduates than the national schools, that reverses for the doctoral students. An important difference separates Japan and the U.S. in the area of funding for research. While more than half of the top 20 receivers of U.S. federal grants are private institutions, Keio University is the only non-public institution in the top 20 receivers of science research grants (Kakenhi in Japanese) from the Japanese Education Ministry. In the prewar period, the role of the Japanese national

universities was central to the research and personnel development needed by the government, and national budgets have furnished support ever since.

Besides those features mentioned above, Japanese universities are dominated by younger students compared to European and U.S. schools. You may feel such situation immediately when you visit Japanese campuses. Despite the large student enrollment in Japan, most will leave their campus for work between the ages of 20 and 23. The Education Ministry had not surveyed the number of adult students by age until the enrollment of adult students in master's degree programs was started to be surveyed in 2000. Right now, Japanese universities are mainly institutions for young people, and not altogether convenient for adult students. However, with growing social acceptance of the idea of lifelong learning, this is changing rapidly.

III. Higher Education System before the War II

The first modern university established in Japan was the University of Tokyo in 1877, which was soon re-organized as the Imperial University in 1886. Since it was established by the strong initiative of the state, the missions of the Imperial University were to train future "elite" and to introduce or interpret Western science into Japanese society, both of which were necessary for the modernization of Japan at that time. Engineering and agriculture, which had been taught at outside university sector in most Western countries, were regarded as the essential part of the newly created university system. Soon people had realized the practical value of university education that would guarantee them to get good job and prestigious social status. This belief was created in the mid Meiji era or around the 1900s, when Japan established its hierarchical higher education system, from the imperial universities down to various types of private schools, and prospective students even born in poor family could move up to a higher social status.

The educational system, however, was so called "European style double-track" secondary education system, in which a narrow university-track was separated from other tracks for those who immediately got employment or continued to further vocational training. In addition, the tuition for university was expensive at that time, and as a result people's desire for the access to higher education was not easily realized until the end of pre-war educational system. The introduction of "American style single-track" secondary education system after the War II, followed by the enormous growth of Japanese economy in 1960s and 70s, was the trigger for rapid increase of enrollment in higher education.

IV. Educational Reform after the War II and Massification of Higher Education

The Japanese higher education system changed fundamentally after the War II. The reforms brought the various prewar institutions of higher education under an all-new university system, setting the stage for the establishment of many new public and private universities. The government had new policy that intended to set up one national university in each prefecture except urban area like Tokyo and Osaka, where several national universities were allowed to exist within the same prefecture.

Japan experienced its first rapid growth of higher education in the 1960s and early 1970s. Due to various causes, the entry of 18-year-olds into higher education grew to 38. 6 percent in 1976 from 10. 3 percent in 1960. This broadening of participation meant not only a quantitative growth of higher education, but also a radical change in its character. Higher education is no longer for elite students, but for everyone who needs higher education. The increased demand for education brought about diversification in offerings, from purely academic to practical instruction.

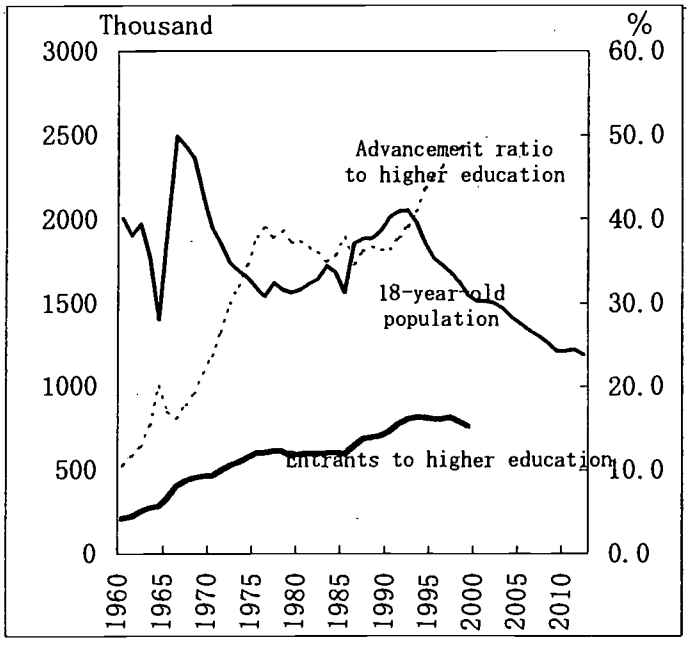
To respond to this rapid quantitative and qualitative change, the Education Ministry initiated a new policy intended to control the quantity and improve the quality of university education in the mid-1970s; this policy, however, became unworkable when the 18-year-old population again began to grow.

The second stage of expansion began at the beginning of 1990s, in response to a surge in the 18-year-old population in the late 1980s. But this is short-lived, and has since been followed by a steady decline in the 18-year-old population, which is estimated to fall to two-thirds within 20 years: from 2.05 million in 1992 to 1.20 million in 2009. Except for a few prestigious universities, the colleges and universities must consider how to deal with a future shortage of applicants and how to attract students (see Figure 3). During this period, the participation ratio of 18-year-old population grew from 36.3 percent in 1990 to 49.1 percent in 2000 (This figure was slightly down to 48.6 in 2001 survey.).

Along with the broadening of higher education, a growing number of people complained about the content of education, saying that teachers spent too much time on academic matters while many students prefer to take practical courses that will be useful for their future jobs outside academia. Another problem is the students' declining incentives to learn. Because many students who might not have enrolled in higher education two decades ago, are not accustomed to study abstract ideas taught in academic language, universities find themselves forced to change their way of teaching and the structure of their curriculum. "Faculty development" (FD) has become a fashionable phrase in Japan in discussions of

improvement in teaching. It is one way universities must reform themselves, in a situation where an inadequate response will mean they can no longer attract students.

Figure 3. Growth and Decline of Japanese Higher Education



Source: The Education Ministry, School Basic Survey
In this chart, higher education includes 2-year junior colleges.
Source: Education Ministry's School Basic Survey

V. Expansion of Graduate Education

The current system of graduate education in Japan, introduced after the War II and modeled after the U.S. system, aimed at producing highly qualified researchers and professionals. However, until the late 1970s, the system mainly provided for research training for future academics. In some areas such as engineering, growing enrollment had gradually changed the character of graduate education from academic research training toward professional training. Then reform of graduate school system was undertaken by the Education in the 1970s and 1980s, followed by the introduction of systemic flexibility and the expansion of functions.

Although graduate education aims at both academic research training and professional training, it is also regarded as an important place for research activities. Due to the broadening of university education, concerns about university research have shifted from undergraduate education toward graduate education and training. Graduate school seems to be a sanctuary not only for university faculty members who wish to unite research and teaching but also for policy makers who regard university research as an engine for economic growth and technological innovation. Attitudes toward research as a primary focus are shown, worldwide and in Japan, in Figure 4.

Figure 4. Research vs Teaching

Regarding your own preferences, do your interests lie primarily in teaching or in research?

	Primarily in Teaching (%)	Leaning to Teaching	Leaning to Research	Primarily in Research
Australia	13	35	43	9
Brazil	20	42	36	3
Chile	18	49	28	5
Germany	8	27	47	19
Hong Kong	11	35	46	8
Israel	11	27	48	14
Japan	4	24	55	17
Korea	5	40	50	6
Mexico	22	43	31	4
The Netherlands	7	18	46	30
Russia	18	50	29	3
Sweden	12	21	44	23
United Kingdom	12	32	40	15
United States	27	36	30	7

Source: Boyer 1994

The growing number of graduate students, especially in engineering, reflects new expectations from the industrial sector. Master's degree programs grew far more rapidly than those at the undergraduate level. The proportion of students who advanced from undergraduate to master's degree courses was low in the engineering field during the 1960s and early 1970s, but it had reached nearly a quarter by 1996; at the national universities, for example, around 60 percent of undergraduate students in engineering major advance to graduate courses recently. On the other hand, in the social sciences, this ratio has remained extremely low.

Although enrollment is different among disciplines, financing of graduate education has been closely connected to research intensity at Japanese national universities. The level of general university funds allocated to each national university from the Education Ministry is greatly different according to whether the university has doctoral programs or master's programs. The size of the general university fund allocated for a research unit that is connected to a doctoral program is at least twice that of a research unit that is not. For private universities and also for local public universities, having doctoral programs confers prestige among neighbor institutions, even if they do not attract enough students.

Graduate education has thus been expanding by responding not only to the growing needs of society but also to faculty insistence that today all the national universities have, at least, a master's program and that 80 percent of them have doctoral programs. Additionally, 47 percent of private universities have doctoral programs, 19 percent have master's degree programs, while 34 percent have only undergraduate programs. The annual growth of graduate enrollment in Japan was the highest among major countries in the world: While the United States experienced about 1.8 percent of annual growth during the 1980s, Japan had 5.6 percent.

VI. The Relation of Universities' Role with Science and Technology Policy for the Knowledge based Economy in the 21st Century

1. University Reform

To respond to the sophistication of research in science and technology and the growing expectation for the role of universities, the environment for university research and graduate education is now changing to be reformed. Selective allocation of resources, expansion of graduate training accompanied with new financial aid programs, encouragement of research cooperation with industry, restructuring of research units at major universities, and so on, are some of the facts particularly observed. The "university reform" has become the key word for our understanding of current situation of Japanese higher education system. The Basic Plan for Promotion of Science and Technology, along with vigorous discussions at the University Council, has been a great support for the reform of university research.

2. Selective Allocation of Resources

During a hard time for university budget in the 1980s, due to the governmental budget deficit problem, the growth of general university fund had almost frozen. However, the re-vitalization of university research was urgent

because of the promotion of advanced research and securing economic competitiveness, the Education Ministry has increased other types of research fund different from general university fund. These funds were not formula-based, but on the competitive base. So, within several years in the 1990s, the structure of university research funding had changed pretty much. The setting up of special funds for graduate schools (institutional base) and new fellowships for doctoral students and postdoctoral researchers (individual base) were the typical.

The aim of these new policies, along with growing amount of competitive research grant (called "Kakenhi"), is to give additional resources not to all institutions and students, but to selected schools and scholars whose research quality and performance are outstanding. A new funding program called "Research for the Future," which started in 1996 and managed by the Japan Society for the Promotion of Science (JSPS), is funded through capital investment made by the Japanese government to promote and expand the frontiers of scientific research. "Toyama Plan," which aims to nourish 30 top-ranking schools and departments, was opened to public in June, 2001. This new policy will accelerate the trend to selective governmental funding. "Toyama" is the name of current Education Minister.

In addition, some universities, like the University of Tokyo, have reformed their research unit to be suitable for graduate education. By doing so, they are successful to get more research fund from the Education Ministry. "Center of Excellence (COE) " program is also an example of selective allocation of resources. This program aims at establishment of a superior research base and the Ministry is providing active support to those institutions recognized as COE.

Financial support for graduate students and post-doctoral researchers is important for research training. In this individual domain, selective allocation of resources has also been promoted. For graduate students, scholarship loan provided by the Japan Scholarship Foundation (JSF) has played the biggest role. It is provided to enable component students who lack financial resources to attend graduate schools. More than 40 percent of master's program students and more than 60 percent of doctoral program students used to take this loan in 1970s. Although the growth of JSF scholarship does not follow the expansion of student population, this works as a basic financial support for graduate students. Students who afterwards serve for universities or related institutions as researchers for some years do not need to return this scholarship loan.

In 1985 the Ministry established a new and more competitive fellowship program for young researchers, called "Fellowships for Japanese Young Scientists." This new fellowship, which is administered by the JSPS, is provided for graduate students and post-doctoral researchers on a highly competitive base. In fiscal 2001, 2,966 doctoral students and 1,554 post-doctoral researchers are granted this fellowship.

Along with the promotion of "The Program to Support 10,000 Post-doctorals," which is included in the Science and Technology Basic Plan in 1996 (revised in 2001), these new kind of competitive support device will be expanded not only by the Ministry but other governmental agencies including Science and Technology Agency.

3. Cooperation with Industry

Although there are severe criticisms about the current role of universities and university research, there have also diverse expectations and demands from industry, and from other sectors of society, for scientific research activities at universities regarding the solution of specific and practical problems. It is important for universities to respond to these social demands as much as possible, while, of course, retaining their initiative and their original mission of scientific research.

In their cooperation with industry, universities utilize their accumulated achievements and research abilities, and by doing so they are able to make their contributions to society on the one hand, and to obtain useful stimuli for their research activities on the other. From this point of view, universities should make efforts to engage in cooperative research with industry according to their specific goals.

The relationship between universities and industry, however, has only recently come to be regarded as desirable by university faculties, especially in the social sciences and humanities. Previously it had been argued that cooperation between these two sectors would endanger the freedom of research and the university's autonomy. Some faculties even thought that research for the sake of research, or purely "curiosity-oriented" research, was fundamental for a university. The popularization of mass university education and the advancement of basic science and technology gradually moderated such objections while increasing demand for accountability of universities, and the worsening of research environment after 1980s forced universities to change their role, structure, and relations with other social sectors.

The government has encouraged universities to introduce the system of joint research between university and industry, and also the system of contract research, by which university researchers can be engaged in specific research projects commissioned by industrial enterprises on a contract basis. Since 1987 the Education Ministry has been helping national universities to establish joint research centers aimed at contributing to the promotion of research cooperation with industrial firms in the in-service training of engineers and researchers. Furthermore, in 1998 a new system of a technology transfer system related to patents was introduced. TLO (Technology Licensing Organization) excavates the

results of researchers and issues patents regarding technology at universities and gives permission to companies. Also promotes the application of the academic results to the society by trying to establish business. At the same time, they return the revenue of the royalties to universities or inventors. Further research development is expected by such conduct.

4. Concentration of Resources – Research Universities vs. Others

As a result, the funding structure for university research has been changing. Universities and their faculties now increasingly expect extra funding, other than general university funds, from private companies or competitive governmental grant-in-aid programs. At some laboratories within research-intensive universities – in engineering for example, more than one-third of research funds comes from the private sector. And these external funds have become essential for the maintenance of the laboratories. Under these circumstances and for the vigorous development of research activities corresponding to social demands, the system of introducing financial resources from outside sources has become increasingly simple and more flexible.

Since the educational reform just after the War II, every university has had the same mission in Japan. However in reality, the function of each university has been different and the degree of diversity becomes wider recently. There is a trial to classify Japanese universities into the same kind of category used in the U.S. There we can recognize 24 "research universities" out of more than 400 universities from a scholarly work done in 1980s in Japan (Keii, 1884).[i] When we compare the growth of enrollment in "research universities" and others, the growth of graduate enrollment exceeds that of undergraduate in research university group, while much more increase is occurred at undergraduate than graduate programs in other university group. This means that research universities have become more like research universities and non-research universities have become more teaching oriented. The difference becomes larger.

In fact, the allocation of research grant is tremendously different among institutions. As for the Education Ministry's research grant, for example, University of Tokyo takes more than one-tenth. The top 15 universities, against more than one thousand higher education institutions, receive more than half.

5. Further Reform

In line with Science Council and other recommendations, the Education Ministry has for some time been making systematic, prioritized efforts to bring Japan's research infrastructure up to international standards and to create a scientific research system that is open to the world. The Ministry is actively taking measures to advance the scientific research and related policies laid out in

the Second Science and Technology Basic Plan.

These measures are being through continued substantial budget increases that have brought funding for scientific research and support for the Japan Society for the Promotion of Science. The Education Ministry will continue making special efforts to expand the budget for expenditures that are essential to promote scientific research in universities and will make every effort to achieve the goals laid down in the Science and Technology Basic Plan. In addition, there are two hot issues that are closely related to the future picture of university research; they are,

1) possibility of changing legal status of the national universities, which intends to make them as "agencies" or institutions separated from the main body of the government. The Ministry's ad hoc meeting for this matter issued the interim report on September this year.

2) creation of the National Institute for University Evaluation, which aims at evaluation of teaching and research programs of each national universities for more reasonable resource allocation as well as for the improvement of the programs at each university. This institute was established in 2000.

6. University Education for the Knowledge-based-Economy

In line with establishing new research system, reform of training human resources is another issue for Japanese higher education. Before 1990s, people tended to see universities just as places to pass-by before getting job at industry and government. Universities have been crowded with applicants and the entrance examination was very hard. Indeed, educational problems in Japan mostly stemmed from this hard examination system. Although this examination system helped universities select good students, it did not help universities find such students who had a lot of creativity.

Creativity and originality play the key role in the ages of knowledge-based economy, instead of uniformity and obedience in the ages of mass-production industry. Creativity can be grown better by thinking deferent from others. It has been very hard to do so under the hard entrance exam. It is incidental that Japan is now under the continuing decline of 18-year-old population. Entering universities is no more hard, generally speaking. This would make universities difficult to recruit enough number of students. At the same time, however, this is the chance for some universities to change the way of recruiting and teaching students with more creative manner.

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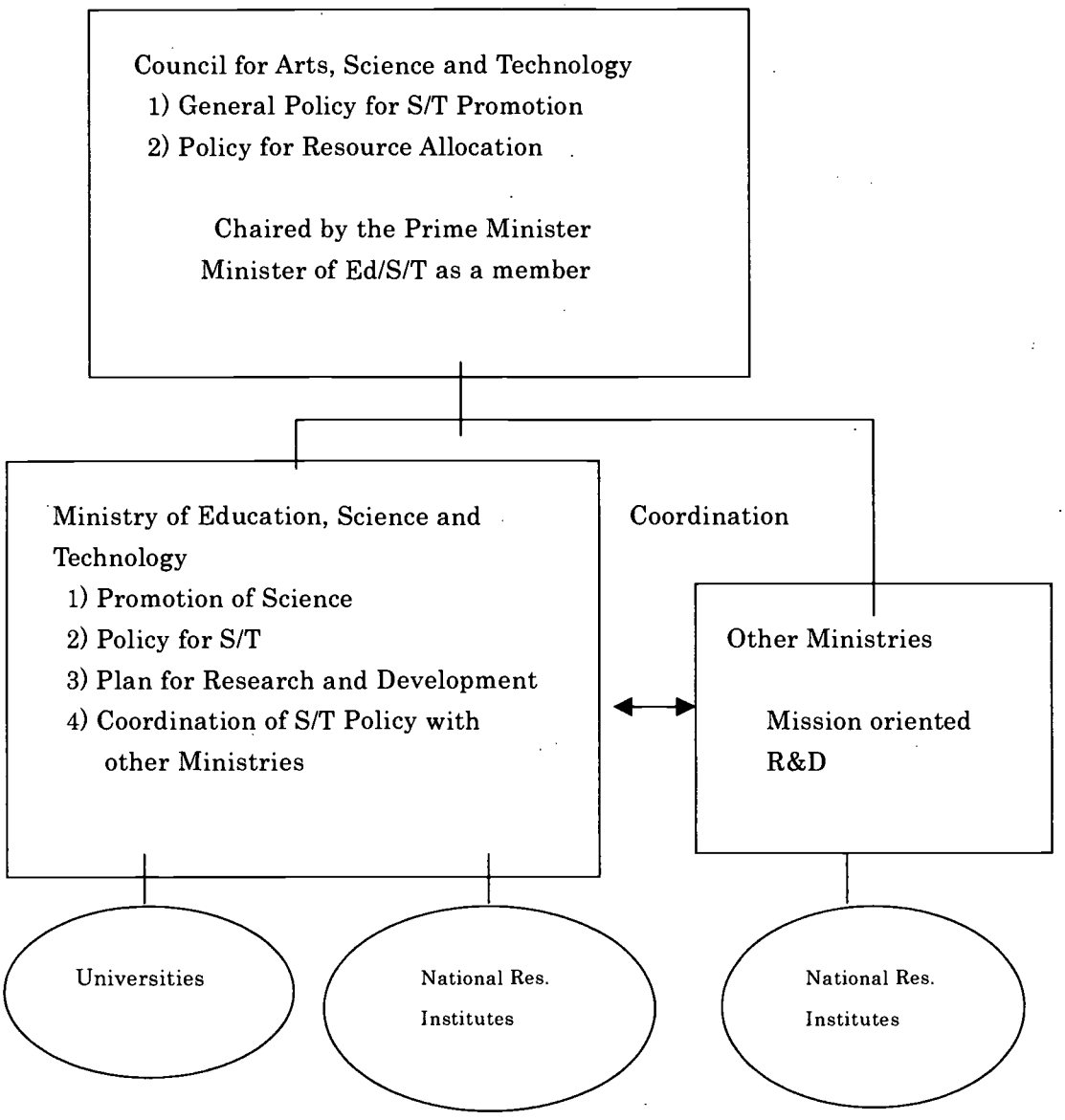
Figure 5. New Structure for Science and Technology Formation after Jan. 2001



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